


THE MIGHTY AND MYSTICAL RIVERS OF INDIA

ALAKA SHANKAR

PUBLICATIONS DIVISION



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Preface

The sound of gurgling stream in a deep, thick forest becons travellers to dip their tired feet in its cool, cool water. Bubbling, gliding, severing, the stream stirs happy memories of childhood, of youth, of the many happy years gone past. It rustles up dreams-airy and imaginative-of the future that is yet to see and to think the creator of these wonderful images is none other than an ubiquitous colourless, formless, odourless liquid? A mere oxide of hydrogen. A new chemical? Yes, water is that fantastic, magical substance-the very maternal of life itself.

You know, our earth is three fourths water and only one part land. The rivers, the streams, the lakes, the ponds, the brooks are all different bodies all originating from one source—the ocean. They branch out from this main water source and go back...in time...much with its experience of the countries, the lands, the climes, the people, their culture and the invaluable heritage of the years gone by. India abounds in rivers. Transcending from the peaks of the Himalayas—their waters merge into the many seas landscaping the continent and finally into the Indian Ocean. As you stand on the banks of any river, and stare into its flowing water, you can read the story of its glorious past. It may be a big river or a small one—it has a personality of its own, as distinct as the land through which it flows.

Presented here is the story of The Mighty and Mystical Rivers of India—the main arteries of sustenance, throbbing with hope and life. The effort is to give in simple details the richness and importance of their presence. Let us hope the book will prompt you to explore and seek more and get the maximum out of our rivers.

July, 2001
C-686, New Friends Colony
New Delhi

Alaka Shankar



About The Author

Ms. Alaka Shankar, the author, is a writer of repute.

Writing on varied subjects she has established a versatility in treatment. Her published books include, amongst others, *Indira Priyadarshini*, *Forever Nehru*, *Shankar*, in the class of biographies. Picture books and Adventure books have been her forte, prominent among them being, *Sonali's Friend*, *We have New Friends*, and *The Big Catch*.

She has been a broadcaster and has also created over a hundred cassettes on diverse subjects of literary and cultural interests for children. Specialized in Public Relations Ms. Alaka Shankar is a writer with many facets.

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Introduction

From early childhood, I have been fascinated by nature and its bounties—the awesome mountains and their mysteries—the birds and animals in all shapes and colours, living among the majestic trees and wild flowers; the vast ocean and its deep secrets, the endless desert sands stretching out to the horizon and even the changing hues of the sky, sometimes lined by a row of birds in flight and sometimes the appearance of rolling clouds bursting into thunder and lightning and pouring down as rain. How beautiful it all is! The more I experience it, the more enchanted I am and it becomes an endless search, to discover more and more of this beautiful world of ours.

The sound of a gurgling stream in a cool dim forest always draws hikers to dip their feet in the clear cool water which flows along with a sound like rustling leaves, sometimes turning to a foaming white cascade and falling down in the ripples of a deep pool. Bubbling, glinting and swirling through the thickets, the stream plays a game of hide and seek and suddenly disappears from sight around the bend.

Water, without which there would be no life on earth. But what is water? Where does it come from? How is it formed? What is its source? Yes, it is so common that we take it for granted. And yet, it is one of the most amazing and most rare materials in the whole wide universe.

What is water? Water is that rare commodity on earth that can be found in three forms. It is found in the form of liquid as you see in a river or a lake or an ocean, it can be solid as you see in the form of ice and it can also be a gas, which you find in steam or the water vapour of a cloud.

And did you know that water is also a powerful chemical? You may put it in various strong and tough metals and in due course of time, the water will dissolve them! Water is that fantastic magical substance which is the very material of life itself!

Water-the colourless, odourless liquid that descends from the clouds as rain, forms streams, lakes and seas, is a major constituent of all living matter. It is an oxide of Hydrogen which freezes at 0 degrees centigrade, and boils at 100 degrees centigrade, is the explanation you will find in most dictionaries.

Water is what we drink, wash in, cook with, swim in; it falls from the sky as rain. The RIVER also is water. The ocean also is water. And yet they are formed differently. Let us first find out how the ocean was formed.

Scientists tell us that our earth was formed more than four and a half billion years ago. For a long time, it had no water on its surface. Its inside was so hot that it was a boiling liquid. Its outer surface too, was so hot that even a drop of water touching it, would surely have evaporated.

Well, over the years, the outside of the earth cooled off. Some scientists are of the opinion that when the earth cooled enough, the water vapour in the atmosphere changed into water and fell to earth as rain. It would have rained for a long time! And gradually, all the low parts of the earth would have filled up with water.

Yet, another group of scientists think that when the earth's surface started cooling, steam came rushing up through volcanoes and geysers, which we find even today. And when this steam hit the cool air, it changed into water. The water then ran downhill and over hundreds and millions of years, it filled up the lowest parts of the earth's rocky crust.

And so, the theory is disputed, whether the sea could have been formed by tremendous rains or it may have been formed by steam from inside the earth. By studying the earth's rocks and their chemistry, a few scientists also believe that the sea could have been formed in one of these two ways or a combination of both.

The sea unfolds a story of discovery and trade, adventure and

exploration, of strange creatures and corals and weeds and flowers. When you stare at the sea you will recall some of the stories you have heard or read, of ships and boats that crossed it and of the dangerous risks and high adventures undertaken by the travellers.

And did you know, that most of the rain and snow that make our existence possible, comes from the sea? And how is that possible?

The heat of the sun causes a great deal of the water on the surface of the sea to evaporate and become a gas. This wind carries the clouds over the land. When these clouds move to a cooler region, the water vapor turns into droplets of water and fall down as rain or snow.

So you see, without the sea, there would be no rain and without rain there would be no life on earth. The snow from the mountain-tops melts and trickles down the mountain sides to become streams, rivulets, tributaries and finally a river. The rain and snow that falls down on earth soak into the ground and provide the moisture which is required by the plants to survive.

Without rain or snow there would be no fresh water and also no plants. And if there was no fresh water to drink or plants to eat, how would animals and human beings survive? Water is as essential to plants and animals as it is to human beings. It makes up over 70% of the body weight of a man. Since all chemical reactions of life process can take place only in the presence of water, no living thing can exist without it. A moderately active man must drink about five and a half pints of liquid a day. But beyond this basic biological requirement, we need water for many other purposes. As cities grow, and population increases, the need for water also increases.

Have I set your mind ticking about this wonderful world we live in? Have you begun to delve into the mystery of our universe? Have you got ensnared by the wonders of nature? The more we seek, the more we will find and discover.

As I stand on the banks of the Ganga and stare into the deep flowing waters, my thoughts wander once again into the glorious past of our country, its history, its people, its culture, its heritage. Yes, the great and

mighty Ganga silently flowing by, was witness to it all, through the centuries!

When you cross a river by boat or over a bridge, will you stop and think a while? Of its rich history, its mythological stories, the battles won along its banks, the towns and temples built along its course, the trade, the agricultural boom, and so much more. The knowledge you will gain will be fathomless. Seek and you will find it.

I dedicate my book to all the great and small rivers of our country, the rivers that are the pulse and life of our people. This book is a story of the rivers of India. And I hope you enjoy reading it as much as I enjoyed writing it.

1

What is a River?

India abounds in rivers. Transcending down from the peaks of the Himalayas, the Ganga, Yamuna, Brahmaputra, Sutlej, Indus and Jhelum and many of their tributaries wind their way across the northern states and merge into the Arabian Sea or the Bay of Bengal. And from the Vindhya Ranges in central India, the Narmada, Krishna, Kaveri, Godavari and their tributaries spread a web across the eastern and southern states of the country and finally find their way to the Bay of Bengal and the Indian Ocean.

Despite their many similarities, all the rivers big or small are unique. They have a personality of their own, as distinctive as the landscape through which they flow. But you can only see these special qualities if you go closer and watch the fascinating life in the flowing water and study the inter-relation of plants and animals that dwell in it. Just a passing glance will not reveal the deep secrets. You will then have the satisfaction of understanding the marvels of the living world of nature and the thrill of discovering a new life.

Before we trace the course, the history and resources of the rivers of India, I would like to give you a basic and fundamental introduction to what is a river, what are its uses, and explain how it is geographically divided into three parts-the source of a river, the channel of a river and the mouth of a river. It will help you to appreciate and understand the later chapters of the book as we go along.

A river is a large body of water that flows over land in a long channel. Most of the rivers begin from the mountains or even hills. The source

of a river could be varied-a melting glacier or a snowfield, an overflowing lake, or even tiny springs merging into one. As the river flows downwards in its channel, it receives more water from streams and other small rivers and also rainfall. The end of the river is the mouth, where the water empties into a larger river, a lake or an ocean. But often, heavy rainfall or the rapid melting of the snow in the mountains, causes the river to overflow. This flooding may wash away large amounts of fertile farmland, destroy buildings and injure or kill people and animals.

Rivers all over the world vary greatly in size and length. Some are so small that they dry up during the hot summer months. The longest river in the world is the River Nile in Africa, flowing a length of 6,671 kms (4,145 miles). The second longest river is the River Amazon in South America, measuring 6,437 kms (4,000 miles). But it is so vast that it carries more water than any other river- more than the Nile, Mississippi and Yangste in China, all put together.

Rivers are of great help to humanity in many different ways. Through the centuries they have been a source of transportation. Explorers and travellers built settlements as they moved along. Slowly trade flourished along its banks. The early settlers of North and South America used rivers to move inland and capture the lands from the native Red Indians. The earliest civilizations-the Aryan, Egyptian, Babylonian, Assyrian, were established on the banks of rivers. India too, has a history of many invasions from the earliest times known. The terrestrial route these invaders took was not far from Taxila, the "Door of India". They moved forward in the direction of the River Indus from the Oxus River, which is the present northern border of Afghanistan. The earliest to cross the River Indus were the Aryans, who invaded in the second millennium B.C. (1500 B.C.). Much later came the Cyrus and Darius Persians. Alexander's Greek and their successors (326 B.C.), the Scythians (1st century A.D.), the Parthians, Tokharians, Huns, Turks, Arabs and Mongolians. It was the same place where the Chinese pilgrim Huan-Tsang, in the 7th century A.D. crossed the river by boat to call on the Emperor Harshavardhana. He later wrote a chronicle on the reign of this great King.

Excavations in the Punjab at Harappa (2500 B.C.) on the Sutlej river,

have revealed an advanced civilization-the Indus valley civilization. The earliest civilization in India was found on the river Indus which flows across north-west India and through Pakistan. By the year 2,000 B.C. it became the great Indus valley civilization. The valley was rich in irrigation, the towns were well-planned and had a good sewage system and the people had a language of their own.

But around the year 1500 B.C., India was invaded by the Aryans. They were warriors who had conquered a large portion of Europe as well as Iran and had finally reached India. The Aryans were the discoverers of the very important metal, iron and they brought in a new language, Sanskrit, which has co-relation to many European languages. The Aryans also introduced a new religion which was later called Hinduism. They moved south till they reached the river Ganga. They cleared the forests and made settlements along the river, working on the fertile soil and grew rice and raised cattle. And the Ganga plains soon came to be known as the land of the Aryans. Thus, rivers have become a focal point in forming the history of the world.

Rivers are also valuable to agriculture because their valleys and plains provide fertile land to grow crops. For example, the rich basin of the Ganga and the Nile yield ample crop and this in turn, also leads to employment and prosperity. For those farmers who live in the dry regions, irrigating their land was not a big problem. Irrigation ditches and water canals carry water from the river to their farmlands. A large part of India is agriculture land and the livelihood of millions of people, employed in agriculture or in trades and industries related to it, depend on the rivers.

Rivers also serve as an important source of energy. The rapid force of the flowing water near waterfalls and other steep places is used to run machines and even generate electricity. The Bhakra Nangal Hydro-electric Project generates and distributes electricity to many regions of northern India. Today, hydro-electric water turbine plants produce about one fourth of the world's electric power. Water wheels and water turbines change the force of the flowing water into energy. Flour mills, machinery and textile mills are built near the steep rivers and operated by water power.



The source of a river is mainly a combination of rainfall, lakes, springs and melting ice and snow. The streams that flow from a river's source are known as headwaters. The highest elevation of a river is its headwaters. The headwaters flow into narrow channels called rills. As they travel downwards, they join together to form wider and deeper channels. These are the brooks, which further downhill, combine to form streams, and the streams join to form rivers. All the rills, brooks, streams carrying water to the river are called tributaries. The river with its tributaries is known as a river system. And some river systems have many small rivers that eventually flow into one large river.

Rivers begin from the mountains where melting glaciers or a snowfield forms the source of the water. (facing page)

River channel consists of land on either side of the river, as also beneath the flowing water. The bottom of the channel is known as a river bed and the edges are called river banks. This is the Channel of river Ravi flowing through Himachal Pradesh. (below) *(Photo NHPC)*



The last stage of a river before it reaches the sea is known as the river's mouth. This is Ganga at Calcutta where it empties out in the Bay of Bengal.



Thus, rainfall reaches the largest river by way of rills, brooks, streams and small rivers. But some of it also soaks into the ground and accumulates as 'ground water'. And some of this ground water seeps into the river system, thereby keeping the river water flowing even in dry seasons.

However, in some dry regions, there is not sufficient over-land flow or even ground water to keep the rivers flowing the year round. These rivers dry up from time to time and are called intermittent rivers.

The waters of the river system form the drainage 'net' of that land area. This region which is drained by the river is called system drainage basin. The drainage basin of the River Amazon in South America covers an area of about 7,000,000 sq kms (2,700,000 sq miles).

The Channel of a River

And now we will understand in depth what is a river channel. It consists of land on either side of the river, as also beneath the flowing water. The bottom of the channel is known as a river bed and the edges are called river banks. The slope of the channel is usually steep at the source of the river and flat near its mouth. The flow of the water in most rivers therefore, is rapid in its



upper course. When a river crosses a layer of strong resistant rocks, it causes a waterfall or rapids. Further downstream, the rocks are softer and get eroded by the gushing flow of water, thereby causing a deep drop in the water channel. The Niagara Falls on the 36 mile long Niagara River, connecting Lake Eeri and Lake Ontario in North America, the Victoria Falls on the river Zambezi in Central Africa and the Gersoppa Falls in Karnataka, India, are some such examples. Rapids are a result of the tumbling of large boulders or rocks ledges in the river channel. The current of fast flowing river sometimes cuts a canyon, and the river has high walls worn into its beds. The spectacular Grand Canyon in North America on the River Colorado which flows down from the Rocky Mountains is a majestic wonder of nature.

As the river flows through its upper course it may also cut valleys through the land. This is caused by the land eroding due to the force of the swift flow of water and a deep V-shaped valley rises from the river bank.

Next comes the middle or lower course of the river. Here the area on both sides of the river banks is flat. This area is known as the flood plain. During floods, the river water spreads out all over these plains. These floods may cause natural levees. They are a build-up of sediment (soil and rock) that raises the river. Next to these natural levees, marshes and back swamps are formed.

The Mouth of a River

The last stage of a river before it reaches the sea or the lake, is known as the river's mouth. The slowing process of the river at this stage creates a body of land called a 'delta'. It begins to build up at the river's mouth and stretches out like a web right across to the sea or the lake where the river empties out. Deltas are formed because the river deposits the products of erosion and rocky decay as it moves along. When this visible dump is rapidly deposited, it forms a delta. The rivers Mississippi and the Nile have very large deltas.

Now you know the basic information about a river-its source, its formation, its uses, its course and a lot more. Flowing smoothly and rapidly along, the river plays a very important role in the lives of the people

and their land. It is a blend and harmony of nature and life, reflecting strength, tolerance, endurance, anger, calm, spreading a philosophy of its own as it flows through the land.

The following hymn from Rabindranath Tagore's Gitanjali, in my eyes, reflect the pulse of the river in all its glory.

"Where the mind is without fear and the head is held high

Where knowledge is free;

*Where the world has not been broken up into fragments
by narrow domestic walls;*

Where the words come out from the depth of truth;

*Where tireless striving stretches its arms towards
perfection;*

*Where the clear stream of reason has not lost its way into
the dreary desert sand of dead habit;*

*Where the mind is led forward by thee into ever widening
thought and action-*

*Into that heaven of freedom, my Father, let my country
awake."*

Himalayas-Abode of the Gods

India is a vast country abounding in rivers and mountains, deserts and fertile land, lakes and oceans, marshy swamps and parched open spaces, fruit laden meadows and wheat and rice crops swaying in the breeze. Its people are as different and varied, yet reflecting a culture that is strong and vibrant-bonding the country that is so proud of her heritage.

I have chosen as my subjects one of the most significant aspects of our country-the rivers of India, which are the main arteries, throbbing with life and giving hope and sustenance to its people. My effort will be to give you in simple details, the richness and importance of their presence, as we trace their source and course, the historical, geographical and mythological tales related to them, the pilgrim places along its course, the growth of towns and cities and the industries related with them, as well as reflecting on the harm mankind is doing from keeping the environment free from global pollution. I do hope the book will be an experience and an adventure for you, prodding you to explore further and seek more from this fascinating world that we live in.

So we start from the very beginning-and that would mean, the very source of the rivers of India. We have divided the Indian rivers into two parts-the rivers of the north, whose main source lies in the Himalayas, and the rivers of the south, which find their source in the Vindhya ranges of Central India.

The Himalayas have not only been a source of strength, wealth and fertility of the land, but have from the dawn of history, influenced, in countless ways, India's thinking, her life and her heritage.

The Himalayas, Transhimalayas and Karakorum ranges were formed 30 million years ago when the northward moving Indian subcontinent collided with the southern edge of Euroasia. As a result, there was an upthrust and over thousands of years, the whole range of mountains slowly and gradually went through different phases of formation.

Mount Kailas, a perpetually snow-clad mountain peak at a height of 6,718 meters (22,028 feet) above sea level, is the main source of all the major rivers of the Himalayan and Transhimalayan regions, the Yarlung tsangpo (Brahmaputra) in the east, the Indus in the north, the Sutlej in the west, the Ganga in the southwest and the Karnali in the south. Mount Kailas has a circumference of about 51.5 kms.(32 miles) and it rises 2,133 meters(7000 feet) high above the surrounding Tibetan plateau in western Tibet. Kailas also overlooks the lake Manasa or Manasarovar, which has a circumference of 90 kms. (56 miles) forming an oval of 518 sq. kms (200 square miles). A very inaccessible and challenging pilgrim spot, Manasarovar lake is 92 meters (300 feet) deep and there are 80 gompas or Buddhist monasteries around the lake.

From a distance, the Manasarovar looks majestically calm and dignified and yet sparkling. An interesting speciality noticed about the lake is the fact that even when there are high waves near the shore of the lake, "its middle current remains calm and clear, like a mirror reflecting the silvery dome of Kailas." The lake is situated 29 kms.(18 miles) south from the base of Mount Kailas. The whole region is called the Manas-Khand or the Kailas-Khand in the Hindu religious books. It covers an area of 322 kms.(200 miles) east-west and 161 kms.(100 miles) south and has very few inhabitants.

According to the Tibetan scriptures *Kangri Karchhoke*, the Kailas forms the centre of the Universe and it has four footprints of the Buddha on its four sides. Devout Hindu and Buddhist pilgrims who tediously traverse difficult paths, perform a *pradakshina* or circumbulation of the mountain and it takes them three to four days to do so!

Along the route there are five very famous gompas or monasteries. Once every 12 years a big fair is held at the base of the Kailas, visited by thousands of pilgrims.

It is around the lake Manasa that you will find the source of the rivers Indus, Sutlej and the Karnali. According to the mythological legends, the Ganga also took its birth from the Manasa. Manasa means the 'mind' and the lake was so called because it reflects the mind of Brahma, the creator of the world.

At a distance of about 5 to 8 kms. (three to five miles) from Manasa, there is another lake called the Rakshasa-tala. It is associated with King Ravana's penance performed here to propitiate Sita. The lake is 124 kms. (77 miles) in circumference and 45 meters (150 feet) in depth. It is believed that there is an underground channel through which waters from lake Manasa flow into this lake.

Through the centuries there have been references of Lake Manasa by travellers, saints, religious sects, in religious writings and in geographical texts. Tulsidasa, the saint-poet of India, was very fascinated by the beauty of the Lake Manasa. He therefore gave his poetic story of Rama the name *Ramacharitramanasa* wherein he has compared the life of Rama to that of the Lake Manasa and its readers, to the swans on its waters.

In the mythological epic *Mahabharata* written by Vyasa, there is a mention of two of the Pandava brothers, Arjuna and Bhima visiting Lake Manasa with Lord Krishna.

In the Buddhist texts written in Pali and Sanskrit, the Lake Manasa is called *Anavatapta*, which means 'without heat and trouble'. In the Jain religious text, the lake is called *Asthapada* or 'that having eight flanks', or *Padmahrada* or the lotus lake. It is also believed that the first of the Jains 24 *Tirthankaras* or gurus, Adinath Rishbha Deo, attained his *Nirvana* or salvation, here.

There is also a reference of the lake Manasa during the reign of King Ashoka. In 269 B.C. he sent the then king of Kumaon to western Tibet to subdue it. It was then annexed to his empire.

In the 7th and 8th centuries, several Chinese travellers came to India across this region to study at the renowned Nalanda University of the time and also to visit the Buddhist pilgrim centres of India. Edrisi, an

Arab geographer of the 12th century, has referred to the lake Manasa in his writings. Also, Father Desideri and Father Freyre of the Roman Catholic faith were the first European missionaries to visit the lake and describe it in their memoirs.

Emperor Akbar also, sent a team to explore the source of the Ganga. They succeeded in preparing a map of this area showing the Brahmaputra flowing from the Manasa lake and the Sarayu from the Rakshasa Tala.

According to Prof. Roerich, the renowned Russian painter, who made India his home, " the Himalayas is a place surcharged with spiritual vibration." Swami Paravananda who visited this area regularly every year since 1928, has said, "Kailas and Manasarovar are the holiest of the holy tirthas (pilgrims places) in the Himalayas. In the surroundings of the holy Kailas and Manasarovar, even the most endearing man, to whatsoever religion he may belong, whether to Hinduism or Buddhism, Christianity or Islam, whether to atheism or agnosticism, becomes concentrated and irresistibly, unknowingly, unconsciously, drawn-as if propelled by someone behind-to the divine presence that is hidden behind this vast universe."

About five kms. (3 miles) up in the hills near Kedarnath is a great tank formerly known as Choravadi Tala, now called "Gandhi Sarovar" as Gandhiji's ashes were immersed here in 1948. The Mandakini river takes its origin here from this tank.

Thus we see that many of the prominent rivers of the north have their source in the Himalayas. The Himalayas have exercised a predominant influence on the life and culture of India. They have not only shaped her history to a great extent, but also left a deep imprint on the literature and arts, legends and religious beliefs of its people. The sacred rivers, the Ganga and the Jamuna around which cluster myths, stories and songs, as well as the Indus, Brahmaputra, Godavari, Narmada and Kaveri, have contributed to India's prosperity. In the next chapter we will trace the course of the major rivers that flow down from the Himalayas. I hope you do not get caught in the maze.

The Vast Expanse Across the Horizon

The Himalayas extend across central Asia from the north-east border of Afghanistan to the north-western border of Myanmar, covering a length of nearly 3,220 kms.(2,000 miles). They form a natural barrier between the plateau of Tibet and the plains of northern India. There are three pre-dominant parallel ranges, namely, the Great Himalayas, the lesser Himalayas or the Trans-Himalayas and the Karakorum ranges.

In the Great Himalayas are some of the world's highest mountains, which include Mount Everest 8,848 meters (29,028 feet), the world's highest peak and the Kanchenjunga 8,598 meters (28,208 feet), the world's third highest mountain. The Makalu 8,480 meters (27,824 feet), Dhaulagiri 8,144 meters (26,810 feet), Nanga Parbat 8,096 meters (26,650 feet), Annapurna One 8,051 meters (26,504 feet), Gosainathan 7,986 meters (26,291 feet) and Nanda Devi 7,791 meters (25,654 feet) are some of the other noted peaks. The peaks in the lesser Himalayan region vary from 2,140 to 4,560 meters (7,000 feet to 15,000 feet). The Shiwalik range 610 to 1525 meters (2,000 to 5,000 feet) is part of the outer Himalayas. K2 or Mount Godwin Austin 8,610 meters (28,250 feet), is the second highest peak in the world and is part of the Karakorum range in north-eastern Kashmir.

Let us now scan the Himalayas and briefly place the ranges and the course of the rivers that flow through them. Right on top are the tiers of the Pir- Panjal range, forming the western end of the Himalayas. Below them is the exhaustive valley of Kashmir which is drained by the Jhelum river. The basin of the valley covers a length of 137 kms. (85 miles) and is 56 kms. (35 miles) wide. A large part of the valley's trade is carried

out on the Jhelum, which is fed by several streams. The beautiful Kashmir valley with its towering peaks, magnificent lakes, springs and waterfalls, lush meadows and breath-taking gardens, is a feast for the tourists eye.

Towards the east of Jammu and Kashmir state, situated in Ladakh is the broad valley of the Upper Indus river. Leh is the capital city of Ladakh at a height of 3,350 meters (11,000 feet) above sea level. It is about 322 kms. (200 miles) from Srinagar. The river Indus flows east of Leh and passes by the famous Buddhist monastery, Hemi's Gompa.

The River Indus and its tributary, the Gilgit, divide the state of Jammu and Kashmir into two. To the north of the Indus is the trans - Himalayan portion and to its south is the Karakorum range, with many high peaks and large glaciers. And south of the Karakorum range are the Kailas and Ladakh ranges. The River Shyok and its tributary Nubra as well as the North Shigar river from the Karakorum glaciers finally join the Indus. The River Gilgit and its tributary, the Hunza, drain the north-western part of Jammu and Kashmir.

River Jhelum divides the city of Srinagar into two parts and a number of bridges connect the two. The famous Dal lake is also situated in Srinagar. The large number of boats plying on the lake and the River Jhelum is a mode of transport as well as trade. They meet the needs of the local population as well as serve as houseboats or *shikaras* for the tourists. Close to Srinagar 40 kms. (25 miles) is Gulmarg or the 'meadow of flowers' at an altitude of 2,590 meters (8,500 feet), a very beautiful hill-station of India.

82 kms. (51 miles) north-east of Srinagar is Sona Marg or the 'golden meadows', resplendent with wild scenic beauty. The Sindh river drains this region.

96 kms. (59 miles) south-east of Srinagar is the hill-resort of Pahalgam at an altitude of 2,135 meters (7,000 feet). It is located within the side valley of the Lidder river. The route to the Amarnath shrine also lies along the banks of the Lidder.

The Pir Panjal is the most prominent range of the Great Himalayas.

The rivers Jhelum and Chenab pierce through the range in the form of gorges.

River Tawi is a tributary of the Chenab. It is also known as Surya Putri or the daughter of the sun God. The *Nilamata-puranas* describes her as holy and the one which pleases the sun. The Tawi flows past the city of Jammu and many people take a holy dip in its waters.

The river Beas takes its rise from the glaciers of the south face of Pir Panjal. It flows east, past Mandi, into the Punjab.

To the south of the Pir Panjal range are the foothills of the Shiwalik. This region acts as a buffer between the valley of Kashmir and the hot plains of the Punjab. Jammu is an important town in this region, situated at the junction of the plains and the hills. The road from Punjab to Kashmir passes through Jammu.

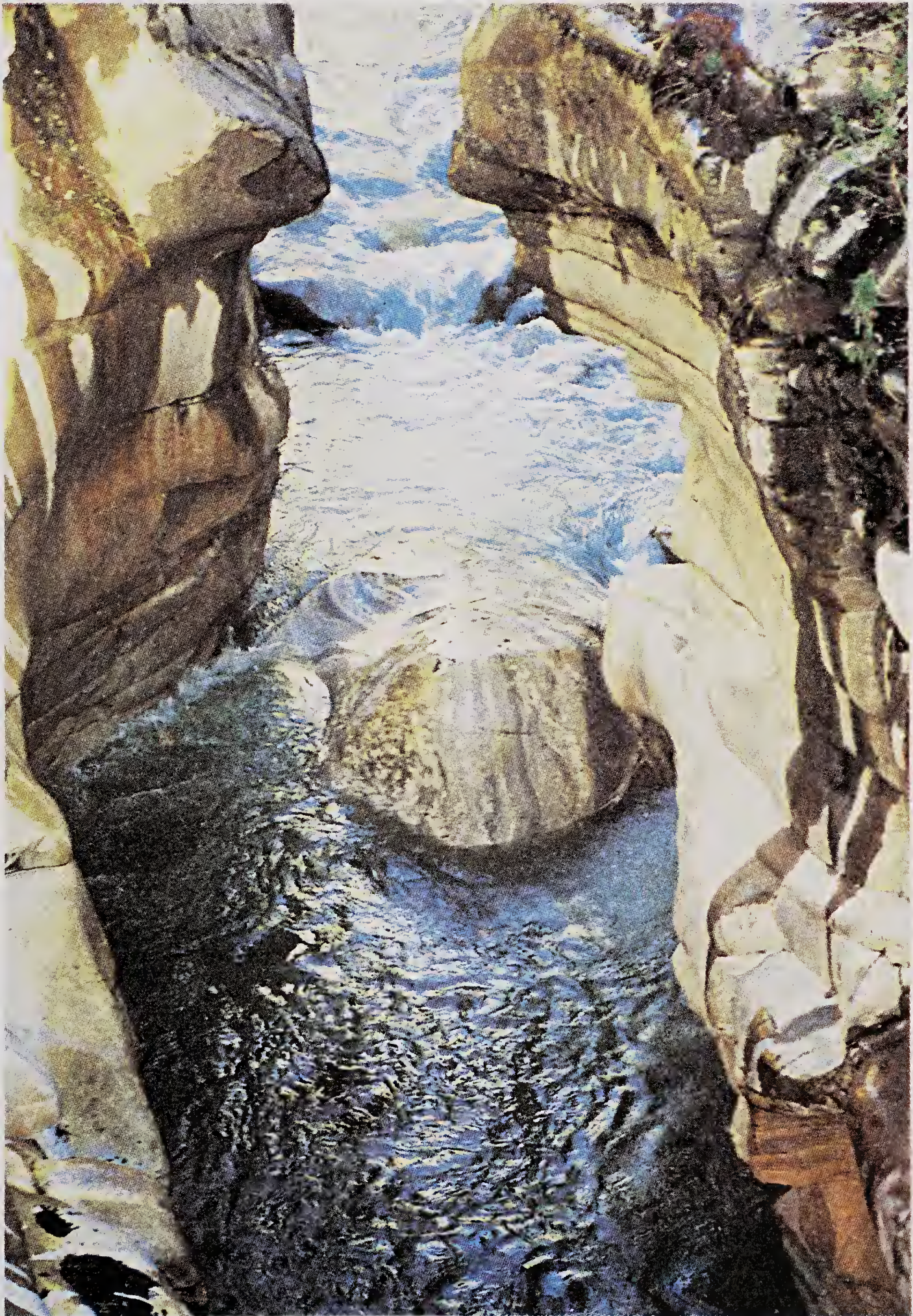
Further south-east, the Himalayan region in the Punjab has four main valleys-the Kangra, Kulu, Lahaul and Spiti. The Lahaul and Spiti valleys beyond the Rohtang Pass are surrounded by mountains with heights ranging from 4,570 metre to 6,100 metre (15,000 feet to 20,000 feet). The Lahaul is drained by the Chandra and Bhaga rivers, which join just below the town of Keylong to form the Chenab. The river Spiti also passes via Lahaul and flows into the Sutlej.

The Kangra valley is connected with the plains on one side and the Kulu valley on the other. All along its southern side flows the rivers Beas, winding its way with tumultuous currents. Dharamsala is a well-known hill-station of this area.

The Kulu valley begins at the end of the gorge and forms the second part of the Kangra valley. The Beas flows through this valley amidst cultivated terraces.

The portion of the Himalayas which spreads from Dehradun to Nainital includes the region which is known as Uttarakhand or Kedarkhand. The Tehri-Garhwal and the Pauri-Garhwal are part of Uttarakhand. The rivers Yamuna and Bhagirathi as well as their tributaries rise in this region. The four famous and sacred temples of Yamunotri, Gangotri, Kedarnath and Badrinath are situated in the Uttarakhand. The Great Himalayan range

runs along the border of this region and its highest peak is the Nanda Devi (7,817 metres). From the Bandarpunch peaks (6,387 metres) in the extreme west region, rise the rivers Yamuna and the Tons. Further east is the basin of the Gangotri glacier. The Bhagirathi river gushes out of



From the basin of Gangotri glacier, the Bhagirathi river gushes out of the snout of the Gangotri.



the snout of the Gangotri, which is joined by the Jhanavi, 25 kms. further downstream. The Kedarnath peak (6,940 meters) is to the south and the Badrinath (7,138 meters) to the south-east. The river Mandakini rises from the Choirabari glacier right below the Kedarnath peak. From the glaciers of the eastern slopes rises the river Alaknanda. The valley of River Sarda is the natural boundary of this region, ending on the Nepal border. Some of the well-developed towns of this region are Dehradun, Nainital, Ranikhet and Almora.

Nepal, an independent state, forms the eastern end of the central Himalayas. A peculiar phenomenon of this region is that the slopes facing India are very steep. These high mountain intercept the moisture-laden

The source of a river could be a lake. Naini Lake is in the lap of the Central Himalayas in the Kumaon region. It is surrounded by snow-capped peaks on all sides. (opposite page)

River Beas with towering peaks, lush meadows and gushing water. (below)



winds which blow from the sea in the south, thereby facilitating the northern plains to receive the monsoon rains. The melting snow as well as the falling rain feed the rivers which flow from the Himalayas. Most of the rivers that run from this region are gushing torrents in the mountains but become slow and calm on the plains. Some of the important rivers that rise in this region are the Ghaghra, Gandaki, Kali and Kosi. The longest tributary of the Ghaghra is the river Karnali which rises in the springs of Mapche Chungo in Tibet, near the Mansarovar. The Rapti is another important tributary of the Ghaghra.

Another large river that descends from a great height in the easternmost Himalayan region, is the Tsang Po which later gets a change in name when it enters India and is then called the Brahmaputra. It rises in the neighbourhood of the Mansa Lake on the Tibetan plateau beyond the Himalayas.

The Tsang Po flows eastwards, for over 1,288 kms.(800 miles) and suddenly turns south-west and enters India in the then NEFA region (North East Frontier Agency). The Tista river flowing from Sikkim is a tributary of the Brahmaputra. At some distance from Kalimpong, it flows down to join the great Brahmaputra in Bangladesh.

As we go further east, lying on the southern slopes of Eastern Himalayas, Bhutan overlooks the plains of India. To its north-west is Tibet and to its north-east is Sikkim. The rivers of Bhutan are more or less mountain torrents and most of them form the tributaries of the Brahmaputra. The largest of them is the river Manasa. The river Torsa flows from the Chumbi valley between Bhutan and Sikkim. The river Wangchu drains the Ha and Paro valleys and the river Manchu which flows through the Punakh valley, reaches the plains where it attains the name of Sankosh.

There is a confluence of the Ranjit and Rongneya rivers at a distance of 16 kms.(10 miles) from Darjeeling and the joint waters flow into the Tista river.

In the eastern section, the Brahmaputra flows through Assam for a distance of 624 kms.(450 miles). At Dibrugarh, its bed flanks to a breadth

of 8 kms.(5 miles) and even more. Guwahati and Dhubri are some of the important towns on its banks. Near Dhubri, the Brahmaputra flows out of Assam, by-passing the Garo hills and enters Bangladesh, where north-east of Dacca, it joins the river Meghna. And the combined waters of these rivers then join the river Padma, a tributary of the Ganga.

This chapter will especially help you and give you a sense of familiarity when we go into further details of the rivers of the north. In the next chapter, we begin with the most sacred of Indian rivers, the Ganga.

"The Ganga, above all other rivers, is the river of India, which has held India's heart captive and drawn uncounted millions to her banks since the dawn of history. The story of the Ganga, from her source to the sea, from old times to the new, is the story of India's civilization and culture, of the rise and fall of empires, of the great and proud cities, of the adventure of man, of the quest of the mind which has so occupied India's thinkers, of the richness and fulfillment of life as well as its denial and renunciation, of ups and downs, of growth and decay, of life and death."

The Discovery of India-Jawaharlal Nehru

Philosophical and deep lying thoughts about the great Ganga, from a man in whose veins throbbed the pulse of India. The Ganga is the holy river *par excellence* of India. It is a personification of health and abundance, dignity and prowess. It represents joy in this life and hope in the life to come.

Ganga is the greatest waterway in India and one of the largest in the world. Its entire course is 2,510 kms. (1560 miles) from its source to the mouth. But it is not just its length that makes it one of the greatest rivers of the world. The Mississippi in North America, the Amazon in South America, the Nile in Egypt and the Yangste Kiang in China are much longer, some even two and a half times long. But what makes the Ganga an even greater river, is that, for more that 400 million Hindus in India and around the world it is the holiest and most venerated river on earth.

The *Bhagawata*, a religious treatise of the Hindus, tells us how

through a continuous process of physical as well as religious and spiritual discipline, a human being can evolve into a higher state of consciousness. Devotion and worship is an aid to spiritual *sadhana* and through pilgrimages to holy places and sacred shrines in all parts of the country, the pilgrim strengthens his devotion. And thus pilgrimages became a part of life in India.

Pilgrimages helped to bring together people from different regions of India and through the spread of religious ideas it brought about a common brotherhood. It brought among the people a better understanding and spirit of tolerance. A sense of inner harmony resulted from such awareness. From ancient times, religion and worship came to be associated with the love and beauty and serenity in nature. Spiritual *sadhana* attains progress where nature is tranquil, sublime and clear. The Indian centres of pilgrimages, were therefore mostly found in places of natural beauty on the hills and the plains. And through the years in different parts of India, the various mountains, rivers and their confluences were treated as sacred places for purpose of religious worship.

Each year thousands of Hindu pilgrims visit the holy



Haridwar is a place where the Ganga leaves the Shiwalik hills and enters the plains. The Har-ki-Pauri is the most famous ghats.



city of Benaras, Allahbad and Hardwar along the banks of the Ganga to bathe in the river and take back some holy water. All along the river banks there are temples and the *ghats* (stairways), lead down to the river. Each pilgrim comes down to the Ganga with a purpose. Some come to purify and cleanse themselves. The sick and the crippled ones come with the hope of getting cured by the pure waters of the Ganga. Many old and sick pilgrims come to die on the banks of the Ganga, for they believe that only from here will they go to paradise. Mr. B.N. Datar, a well known historian, in his book. *The Himalayan Pilgrimage*, has rightly said, "I was charmed with the natural scenery about Rishikesh, Lakshman Jhula, and bow my head in reverence to our ancestors for their sense of the beautiful Nature and for their foresight in investing beautiful manifestations of Nature with religious significance."

The Ganga emerges from an ice cave at the foot of the Gangotri glacier, 3,892 meters (12,770 feet) up in Garhwal Himalayas. It flows under the name of Bhagirathi, which is the main arm. The other arm is the Alaknanda, which joins the Bhagirathi at Deoprayag. From here onwards she is known as the Ganga. Several tributary rivers including the Yamuna, Ramganga, Gomti, Ghaghra, Son and Sapt Kosi join the waters of the Ganga. The river Brahmaputra joins some of the branches at its mouth and together they form a large delta. The cave is known as the *Gowmukh* or the cow's mouth or Earth's mouth, for *Gow* also means the earth. The cave is shaped like the mouth of a cow, with a projected upper lip and behind it are two tall peaks, which look like two ears. Nothing in nature could be more ethereal than this divine spot and the tourists who dare to fathom the dangerous route to visit *Gowmukh*, refer to the mystical and spiritual feelings the place engenders. The cave is located 29 kms. (18 miles) above Gangotri. It is at this place, according to the *Puranas*, that Ganga the daughter of King Himavat and the nymph Mena, was persuaded to come down to earth, by Bhagirath, a descendant of King Sagara.

The story goes back to ancient times. It is the story of the birth of Ganga and has been immortalized by the poet Valmiki. King Sagara of the Ikshvaku dynasty ruled at Ayodhya. He had two queens named Keshani and Sumati. Neither of them had any child so the King performed

severe austerities. Eventually, Queen Keshani gave birth to a son called Asmajas, whereas Queen Sumati gave birth to 60,000 sons. To declare his sovereignty over the neighbouring kingdoms, King Sagara decided to perform a grand ceremony, called the *Ashwamedha Yajna*. The ceremony involved his favourite horse, which would be let loose and allowed to go wherever he pleased. Anyone who tried to capture the sacrificial horse, would have to face the soldiers who guarded the horse and also fight them. And if the horse returned to the Kingdom unchallenged, it would prove that King Sagara was supreme. This challenge was a threat to Indra, that King of Heaven. He captured the horse and tied it behind the cavern by the sea where Sage Kapila was meditating. This region was in the underworld and is called the *Patala*. This place is known as the Ganga Sagar, where the Ganga joins the sea.

The 60,000 sons of King Sagara who were following the horse, suddenly saw him enter the cave of Sage Kapila. They presumed that the Sage had captured the horse. They got angry but since he was a sage they did not kill him. However, they began cursing him and disturbed his meditation. The Sage was really annoyed and he opened his eyes. The moment his eyes fell on the 60,000 princes, he crushed them and his fiery anger turned them to ashes.

King Sagara was deeply grieved at the loss of his 60,000 sons. His grandson Anshuman went to Sage Kapila and prayed and pleaded with him. Sage Kapila promised to grant him two wishes. Anshuman asked for the release of the horse and the 60,000 princes. The Sage gave back the horse. However he said the time was not right to release the princes. When the time came, Anshuman's grandson would pray to Brahma and he would release the holy river Ganga which he held in his *Kamandalu* and when she would flow over them, the 60,000 princes would come back to life again.

King Sagara handed over his empire to his grandson and became a hermit. Anshuman ruled for many years. His son Dilip was the next ruler and he also tried to pray to Bhrahma but he was not appeased. Next to the throne came his son Bhagiratha.

Bhagiratha renounced his throne and went high up in the Himalayas

to do penance for his great-grandfather, King Sagara. He prayed with great intensity and devotion. He wanted to perform the *shraadh* for his ancestors but there was no water available. Sage Agasthya had drunk up all the waters of the ocean and there was drought in the country.

In the meanwhile, there is another story which explains the reason of this drought. It goes to say that once a large number of demons were disturbing the hermits in their meditation. During the day they hid in the ocean but in the darkness of the night they would come out and harass the hermits. The hermits finally went to Sage Agastya, who had attained gastronomic powers through his meditation. He drunk up all the water of the ocean. He did it for a good cause but unfortunately it deprived the earth of all its waters and without water there can be no life. It was Bhagiratha's penance that brought an end to this drought. He prayed to the Brahma, the Creator, to end the drought and release his ancestors. Bhrahma asked him to pray to Vishnu, the preserver, to release the heavenly river Ganga to come down to earth. Vishnu answered Bhagiratha's prayers but in turn he asked him also to pray to Shiva the third God of the Hindu trinity to allow the gushing and forceful river to fall from heaven on his head. If the river came down directly it would split the earth in two. Shiva agreed to take the rushing force of Ganga in the matted locks of his hair, where it lost its force and followed king Bhagiratha as he walked eastward towards Ganga Sagar, blowing his conch-shell with joy. Shiva is also called *Gangadhara* or the 'upholder of the Ganga'. The river descended from Shiva's brow in several streams and they were known as the Sapta-Sindhava or the seven rivers. The Ganga is one of them.

Ganga is considered the elder sister of Parvati or Uma, who is also the daughter to Himavat and Mena. According to the mythological story, she married king Santanu and bore a son, Bhishma.

As Ganga began flowing down her course, there was yet another hurdle. Right in the middle of her path. Sage Jahnu sat meditating, and her rushing torrents washed away all his meagre belongings and it also broke his meditation. In a temper, he sucked up all the water. Once again Bhagirath prayed and appealed to the sage. Finally his anger mellowed and he set Ganga free. That is why Ganga is also known as the

Jhanavi. She flowed along eastward till she reached the ocean where she went over the ashes of the 60,000 sons of King Sagara and they came back to life.

According to the *Agni Purana* and the *Padma Purana*, the Ganga descended on earth on Ganga Dussera day and on this day, lakhs of pilgrims take a dip in the Ganga to purify their sins. The *Agni Purana* and *Padma Purana* state that for the Hindus it is considered very auspicious to die on the banks of the Ganga, or if not, after cremation of the body, they immerse the ashes of the dead, in the holy river. In this way they are released from the cycle of birth and rebirth and attain mukti. The Hindu religion says there are seven ways of worshipping the Ganga- by calling out her name 'O Ganga', by having her darshan; by touching her water; by worshipping and bathing; by standing in the waters of the river; and by carrying soil dug out of the river.

The descent of the Ganga is seen in one of the exquisitely carved sculptures at the coastal site of Mahabalipuram near Madras.

You now know the story of the birth of Ganga and a little about its religious significance to the Hindus. Now let us follow the course of the Ganga and its tributaries right from its birth at the Gowmukh till it plunges into the ocean at the Bay of Bengal. After receiving its drainage in the central Himalayas from the snow-covered peaks of Meru Parvat, Bhrigupanth, Shivaling and others, it flows through the vast and fertile, densely populated plains, moving from the north west to the south-east, where it empties at Ganga Sagar. The total length it covers is 2,505 Kms. (1,557 miles). The Alaknanda is the greater of its two main headstreams. It rises near the Tibetan border in the Garhwal district of Uttaranachal, about 48 kms. (30 miles) north of the Nanda Devi. The lesser of the two headstreams, the Bhagirathi, issues from an ice-cave at the foot of the Himalayan snow-bed near Gangotri in the Tehri Garhwal district. Just a little after the junction of the two headstreams, the united Ganga cuts through the ramparts of the Himalayas and emerges to the plains at Hardwar.

The volume of the Ganga waters is mainly derived from the melting snows of the Himalayas and partly from the monsoon rainfalls, and, when

compared to some of the other Indian rivers, the flow is more stable. Its course flows southerly through the dry plains of western Uttar Pradesh and south easterly past the city of Kanpur and reaches Allahabad. Here, from the right, it is joined by its largest tributary, the Yamuna. From there on, it meanders eastward past Benaras where the river Ghaghra joins it from the north and the Son from the south. As it flows through the heart of Bihar, it receives the Gandak and the Kosi from the north, both of which rises in Nepal. Towards the end of the Chhota Nagpur plateau in Bihar, the river swings around its corner and crosses into Bangladesh in a south-easterly direction. Here it branches out into channels that flow in innumerable directions and finally flows into the Bay of Bengal. Hooghly is the westernmost channel and the River Meghna is the easternmost. The Brahmaputra also merges with Ganga in Bangladesh and forms the river Padma. Further towards the sea is the vast tidal forest called the Sunderbans. And thus flows the Ganga into the ocean.

The Sacred Ganga

The Ganga rises in the Garhwal region of the mighty Himalayas. Its most worthy source is the Jadh, the name of the rishi who had been provoked by the goddess Ganga. Some say that the Ganesha Ganga is its real source. It lies to the east of the Niti Pass. However, the most popular belief is that the real source of the Ganga is the *Gowmukh*, from where it flows out as the Bhagirathi. Its most important source is the Satopanth glacier, overlooking the very sacred Satopanth Lake.

The Bhagirathi gushes out from the *Gowmukh* and tumbles downward along the sandy valley, swirling and fishing over the rocks and stones, through the birch and chir forests of Chirbasa. Dancing and hissing through in a north-westerly direction, it reaches Gangotri at a distance of 28 kilometers. Since the river flows for a while in the northerly direction, it is known as the Gangotri (*uttari* is northern). This is a famous pilgrim centre. In the temple of Gangamata at Gangotri, at a height of 3,142 meters (10,319 feet), resides the two images of Bhagirath and Ganga. The Brahmins have divided the bed of the river adjoining the temple, into three basins. This is the bathing place for the pilgrims. One of the basins is dedicated to Brahma, another to Vishnu and the third to Shiva. The pilgrimages Gangotri washes away sins and ensures eternal happiness. Saint Shankaracharya is said to have installed the idols of Bhagirathi and also those of Yamuna and Lakshmi. There is also a great slab of stone in the river bed, dedicated to Bhagirath whose sincere penance brought the river down to earth from heaven.

At Gangotri, the Bhagirathi is joined by the Kedar-Ganga, which is also a glacial river. It flows down from the Kedarnath peaks and together

they form a deeper and broader stream. Large blocks of rocks and earth frequently fall on its bed from the adjoining mountains. Just a kilometre downstream from Gangotri, the Bhagirathi falls into a small snout or a cave, called the *Gauri-Kund* (Pond of Gouri) and flows on again as a regular stream.

At Bhairavi-Ghatti, 9½ kms. (6 miles) below Gangotri, the Bhagirathi is joined by the Jada-Ganga, or the river Jahnavi. This river takes its rise in Tibet, north of Mana Pass. Compared to the silt-filled waters of the Bhagirathi, the Jahnavi brings down crystal clear water and at the point of confluence, the merging of the two rivers bearing different hues is a very fascinating and picturesque sight.

As the fast moving current sweeps through deep gorges and ravines, the width of the Bhagirathi gets narrower and narrower, to almost 11 meters (36 feet) at some places. Near Jhala it broadens out again to almost 92 meters (300 feet), for a distance of 3.2 kms (2 miles). Further down the river, the river bed again narrows down. And near Sukki, about 33 kms. (27 miles) below Gangotri, the waters of the Bhagirathi rush down through the great Himalayan ranges with deafening noise, and fall from a height of 2,438 meters to 1,477 meters (8,000 feet to 4,850 feet) near Mallachatti and further down to 1,122 meters (3,688 feet) at Uttarkashi, which is another pilgrim centre.

As the Bhagirathi flows on a few kms. below Uttarkashi, near Nakhuri village, it is very near the river Yamuna, but an intervening mountain bars the meeting of the two rivers. 29 kms. (18 miles) further down at Dharasun, you begin to see terrace cultivation. And 45 kms. (28 miles) lower, on the suburbs of Tehri town, another tributary, the Bhilaganga joins the Bhagirathi. The river is now on its last lap through the middle Himalayas and 58 kms. (36 miles) further down, it is joined by the river Alakananda at Deoprayag, 670 kms. (2,200 feet). And here, 56 kms. (35 miles) upstream from Rishikesh, the Bhagirathi and Alakananda unite to form 'Ganga' the name by which it is now known till it reaches the delta in the Bay of Bengal. The entire landscape along the course of the Bhagirathi is grand and breathtaking, with thick deodar forests on either sides of the river and its numerous brooks and waterfalls.

Five streams which gush out from the Alkapuri glaciers 13 kms. (8 miles) north of Badrinath, form the Alakananda river. It rises from a small lake on the 5,482 meters (17,985 feet) high Mana Pass on the Tibetan border. About 9½ kms. (6 miles) further down, near the Mana village, the Alakananda is joined by the river Saraswati. The place where the two rivers make a confluence is called Keshav-Prayag. This is the first of the sacred prayags or confluences. The Alakananda flows down its tumultuous course till it reaches the town of Badrinath, another pilgrim shrine. Here, another stream, the Rishi-Ganga, joins the Alakananda on the outskirts of the town. Right from Badrinath to Deoprayag the pilgrims route is along the river Alaknanda. From Badrinath, the Alaknanda goes southward through a narrow 20 kilometre long gorge which has steep quartzite walls on either side. You will come across caravans of sheep and goats, carrying salt and wool and also the mountain dwellers, who move down with their flock and belongings as the snow begins to cover the higher regions. The river Dhauli joins the Alaknanda at the end of the gorge. It flows down from a glacier on the 7,870 meters (25,806 feet) high Nanda Devi, the highest mountain of the central Himalayas. It is the sacred mountain of the goddess Devi, the Shakti or holy consort of Lord Shiva. At Lata, a small village in the Rishi gorge, you will find a small temple, dedicated to goddess Devi.

The Alaknanda is joined by various streams as it traverses down - hill, and they form the *prayags* (confluences), namely the Vishnu Ganga near Joshinath, the Nandakini near Chamoli and the river Mandakini near Rudraprayag. The Mandakini rises from the Kedaranath mountains.

From Deoprayag, the Ganga moves further south-west through the Himalayan and Shivalik ranges, for a distance of 97 kms. (60 miles) where it touches Rishikesh. The Lakshman-Jhoola is a beautiful spot near Rishikesh, where the Ganga flows along over rocks and stones. And 13 kms. (14 miles) further down, it touches the plains at Hardwar. The Ganga has so far traversed a distance of 290 kms. (180 miles) from the source of the Bhagirathi. High up in the hills, above the town of Hardwar, is a little temple of Mansa Devi, dedicated to Durga, wife of Shiva and daughter of king Himavat, the embodiment of Ganga.

From Hardwar, the Ganga moves eastwards, a broad and easy flowing shiny river, passing through the towns of Saharanpur, Meerut, Aligarh and Farrukabad, where it receives the river Ramganga. Below Hardwar, there is a 64 kms.(40 miles) stretch when the river flows through Bhabar the porous region where the Shiwalik mountains deposit rocks and boulders. There are very few villages along this stretch of the Ganga. Two rounds of crops are harvested each year in this region. The wheat and gram are harvested at the end of March and rice, maize and millet are harvested towards the end of October.

From the point where the river Ramganga joins the Ganga, it then becomes broad and rapid till it reaches Prayag or Allahabad. Here the Ganga is joined by the rivers Yamuna and the invisible, under-flowing river Saraswati. Hence this place is called the Triveni or the confluences of three streams.

As you must have observed, all along the course of the Bhagirathi and the Alaknanda, there are so many pilgrim places. All the confluences of the rivers are considered sacred and the Hindus travel long distances, undergoing many hardships, but their faith is undeterred. A writer on the subject has observed "the Hindus pilgrimages to the eternal snows of the Himalayas, to the depths of forests, to the palm-clad seashores, to hidden sources of rivers or their mouths and confluences, are in fact, the natural outcome of his religions adventure or ambition and have ever served as an incentive to subjectively, meditation, and the growth of the country's underlying unity."

The most significant and sacred of the shrines are in four directions of the country-Badrinath in the north, Rameshwaram in the south, Jagannath Puri in the east and Dwaraka in the west. They encompass within their bounds, the whole geographical expanse of this great ancient country. Lakhs of pilgrims go to the religious congregations of *melas* i.e. fairs-Prayag and Hardwar in Uttar Pradesh, Nasik in Maharashtra, Ujjain in Madhya Pradesh and others.

From the time of the *Vedas*, the Ganga has been described with great devotion and reverence. In the epic *Mahabharata*, the Ganga is called the most sanctifying river in the world.

The religious significance of Ganga is therefore, greater than any other river on earth, being the great holy river of the Hindus. There are several *teerthas* or pilgrim places all over India but those along the Ganga are considered most holy.

I would like to quote Jawaharlal Nehru from his book *Discovery of India* where he has aptly said. "Every place of pilgrimage contain a cross section of the people of India in all their great variety of custom, dress and language, and yet very conscious of their common features and the bonds that held them together and brought all of them to meet in one place."

All the four principal pilgrimage centres of the Himalayas, namely Badrinath, Kedarnath, Jamnotri and Gangotri are quite close to each other. But due to the high peaks and large glaciated regions, the pilgrim route to these places circuits to over 966 kms. (600 miles) from Rishikesh.

The journey to Gangotri and Jamnotri begins at Rishikesh. You pass through the towns of Narendranagar 1,158 meters.(3,800 feet) Tehri 630 meters (2,070 feet) and Dharasu. From Dharasu the road bifurcates into two directions, one leading to Gangotri and the other to Jamnotri.

I have earlier in this chapter, told you about the temples and deities at Gangotri, the first pilgrim spot of the Bhagirathi after it flows out from the Gowmukh. Jamnotri is the other pilgrim centre which is at a height of 3,050 meters (10,000 feet). Though Jamnotri is not situated along the river Ganga, I would like to tell you about the significance of this place as a pilgrim centre for the pilgrims. Jamnotri, though on the banks of the Yamuna, is included as one of the four pilgrim centre for the pilgrims who take the circuitous route of the four main *teerthas* of the Himalayas, and hence we mention its significance in this chapter.

The source of the Yamuna lies about 6½ kms. (4 miles) above the town of Jamnotri from a glacial mountain Kalindi Parvat, which is situated behind the Bandarpooch peak, at a height of 3,463 meters (10,050 feet). The currents of the river run northwards at Jamnotri and hence the name 'Yamunotri' or the Yamuna turned northwards. The course of a river in this direction is considered doubly sacred. Jamnotri has a temple dedicated

to Goddess Yamuna. The idol of Ganga is next to her, symbolizing the unity of worship. There are also a number of hot springs at Yamunotri.

The northmost of all the five 'Kashis' of India is Uttarkashi, situated along the Bhagirathi at a height of 1,124 meters (3,688 feet). The two rivers Varana and Asi, merge into the Bhagirathi on the outskirts of Uttarkashi. The main temple here is the Vishwanath temple dedicated to Lord Shiva. In a hall in front of the temple is the *trishul* or holy trident of Shiva, symbolizing divine power.

Badrinath, one of the four main pilgrim spots, is situated at a height of 3,110 meters (10,200 feet) above sea level in the Pauri Garhwal district of Uttar Pradesh. It lies in the cup of an open valley, along the river Alaknanda, flanked by the Narayan Parvat and the Nara Parvat on either side. The twin peaks form the Badrinath range and are always covered by snow. On the outskirts of the town, the river Rishi-Ganga joins the Alaknanda. The population of the town mainly consists of *pandas* or priests and a few traders. *The Mahabharata* says this region was very dear to the Lord. The place is also identified with the Badrika Ashram mentioned in the *Puranas*.

The Naub temple is dedicated to Narayan. Standing 15 meters (50 feet) high, it faces the east and from here you get a wonderful view of the gently flowing Alaknanda. The sanctum sanctorum of the temple has many idols, the main one being that of Maha-Vishnu, sitting in meditation in the *siddhasana* with his matted hair flowing over his shoulders. On the left are the idols of the twin sages Nar and Narayan, and on his right is the idol of Kuber, Lord of wealth. Shankaracharya located Badrinath as one of the four *maths*, the others being Dwaraka on the west coast, Puri on the eastern coast and Sringeri in the far south. The main priest of the temple is called *Rawal*. He belongs to the Namboodari community of Kerala to which Shankaracharya belonged. The practice of appointing a namboodari has been going on since centuries and even today, when a seat falls vacant, a celibate from the Namboodaris is installed. He has to remain a bachelor as long as he officiates at the temple.

The temple is closed in the third week of November when the snowfall begins and is reopened by the middle of May. The priests and attendants

of the temple leave the shrine and go to Jyotimath during these months. According to popular belief, during the winter season, when the whole area lies covered with snow, sage Narada performs the worship of the Lord at Badrinath and the gods visit the temple everyday. Thus for 6 months, the gods worship the Lord and for the remaining 6 months, the human beings worship the Lord.

The Mahabharata tells the story of how Lord Vishnu assumed four forms, that of Nar, Narayan, Krishna and Hari. Nar and Narayan led an ascetic life and went to the Badrika Ashram where they performed eternal penance for the welfare of the world and for the good of all beings. It was here that Narada visited Badrinath and asked the two sages who they were and why were they carrying out such hard austerities. They in turn asked Narada to go to the *Shwetadweepa* or the white Island in the Ksheera Sagara or the Milky Ocean. There he would find the answer. Accordingly, Narada went to Ksheera Sagara and saw Lord Vishnu. He realized that Nara and Narayan were incarnations of Lord Vishnu. After taking his blessings, he returned to Badrika Ashram and spent many years there in the proximity of the two sages. *The Mahabharata* also tells us that in a later incarnation, Nar and Narayan became Arjuna and Krishna. There is a warm sulphur spring near Badrinath and the pilgrims take a holy dip in its waters.

Pandukeshwar is another religion spot along the steep trek to Badrinath. Located at a height of 2,743 meters (9,000 feet), the region is covered with snow all the year round. It is called the *Swargadwara* or the Gateway to Heaven. During winter the idol of Utsava is taken from Badrinath and is worshipped at Pandukeshwar. On the outskirts of Pandukeshwar you will find the temple of Lord Raghunath. The rituals there, are performed in the Vaishnava style.

The Hanumanchetti *teertha* 2,743 meters (9,000 feet) is located 9½ kms.(6 miles) away from Pandukeshwar. Legend says that after the war between Rama and Ravana, Hanuman settled down here. And it is here that he also mellowed the pride of Bhima, the second of the Pandavas.

Further down at the confluence of the Alaknanda and Saraswati rivers in a village called Maana, it is said that Veda Vyasa had his ashram known

as Keshava Prayag. It is here that he composed the *Mahabharata* and the *Bhagwata*. Vyasa dictated the verses to Ganesha who is believed to have lived in a cave nearby, known as 'Ganesha Gufa'. Here the river Saraswati is also called 'Jnanaswaroopini' or knowledge incarnate. The Saraswati flows with a great velocity and many waterfalls are formed in its course as it gushes down.

The pilgrim centre of Kedarnath is 208 kms.(129 miles) up from Rishikesh. Upto Rudraprayag, the route to Kedarnath and Badrinath is the same. From there onwards, it bifurcates. The distance between Badrinath and Kedarnath as the crow flies is only 41 kms. (26 miles). Kedarnath, at a height of 3,585 metres(11,760 feet), is one of the four most famous shrines or *Chatur dhamas* of the Himalayas. The shrine is dedicated to Lord Shiva and is situated along the river Mandakini, against a backdrop of majestic snowy peaks. The Mandakini river rises high up in the glaciers and falls from a great height to a depth of over 395 meters(1,300 feet) alongside the town of Kedarnath. The shrine is located in an area that is above the level of vegetation. It is one of the twelve most sacred shrines dedicated to Shiva. In it is enshrined the Jyotir-linga. It is here that Bhima, the second of the Pandavas, encountered the buffalo form of Shiva. Behind the temple there is a path known as the *Mahapanth* or the great passage. It is said that the Pandavas ascended to heaven along this path. The head priest of the Shrine is drawn from the 'Lingayat' community of Karnataka. He resides at Okhimath, a town on the opposite bank of the Mandakini. There are 5 shrines at Kedarnath, known as the 'Panch-Kedar', namely the Kalpeshwar, Madhya-Maheshwar, Tunganath, Rudranath and Kedarnath proper. The pilgrims have to visit all five shrines to complete their pilgrimage. Shankaracharya spent his last days in Kedarnath. From the month of October to the end of April, the shrine is closed to the public, since the whole area is covered with snow.

Jyotimath or Jyotirmath at a height of 1,859 kms. (6,100 feet) is another pilgrim centre along the river Alaknanda, where it falls as a deep gorge. In contrast to Badrinath, which has today become overcrowded and commercial, Joshimath as it is also known, is a beautiful village with quaint houses made of wood and stone. The most attractive features of

these houses are the delicately carved wooden doors, windows and balconies. You will come across such houses even in the most remote region right across the Nepalese border in the east to the river Sutlej. The sanctity of the place is attributed to it being the winter residence of Lord Badrinath. There is also another old temple of the Lord manifested in a man-lion form known as the Narasimha. Shankaracharya established his northernmost math at this place. The entire Alaknanda valley covered with Oak forests is full of wild life. The black-faced long-tailed monkeys are a common sight in this region. Near Karnaprayag at a height of 915 kms. (2,805 feet), the Alaknanda is joined from the east by a tributary, Pindari, draining the south eastern side of the Nanda Devi. At Karnaprayag, the pilgrim route bifurcates. One turns off to the south-east, clamoring over many passes via Almora and further over the final range of the lower Himalayas to the popular hill-station Nainital. Here the main attraction is its beautiful lake which was formed by a landslide.

The other pilgrim route goes along the river Alaknanda as it flows down in a south-westerly direction through oak and pine forests. Further along the course the second source river, Mandakini joins the Alaknanda and this confluence, is called the Rudraprayag. Its source is the 7,010 meters (23,000 feet) high Kedarnath. 30 kms.(18 miles) further along the river, is the town of Srinagar, believed to be established by Shankaracharya. It has the well-known shrine of Kamaleshwara or Shiva. Legend says, that at this shrine, Shiva was given an offering of a 100 lotuses everyday. One day the flowers fell short by one and a devotee offered to sacrifice his own head instead.

Another 32 kms.(20 miles) further down, the Alaknanda is joined by the Bhagirathi and this confluence is known as Deoprayag. In terms of sacredness, the Bhagirathi is equal to the river Alaknanda. It is considered to be the most sacred of Gangetic confluences next to the Triveni at Allahabad. It's source is on the west side of a granite mountain. From here onwards, the river is called Ganga. Here, at Deoprayag, an ancient temple is dedicated to Shri Raghunath or Rama, who is believed to have practised penance here. The priests of this temple belong to Andhra Pradesh and they have settled there since centuries.

The Ganga has now reached the foothills of the Himalayan range. 71 kms. (44 miles) below Deoprayag is the holy town of Rishikesh, which has a large number of temples, ashrams and ghats. There is a temple dedicated to Bharat and Laxman. Across the river is the suspended bridge, 'Lakshman Jhoola', which leads to the 'Swargashram' the region where a large number of *Sadhus* or holy men sit in penance. On the left banks of the river is the 'Geeta Bhavan'. The verses of the Bhagavadagita are inscribed on its wall. Some scenes from the Mahabharata are also painted on the walls.

22 Kms.(14 miles) further down from Rishikesh is Hardwar. Hardwar has been a sacred place for over 3,000 years. Here the Ganga leaves the Shivalik hills and enters the plains. It is one of the seven great pilgrim centres of India. A very ancient town with a number of temples, lakhs of pilgrims come here every year. The Har-Ki-Pauri is the greatest and most famous of ghats here. Every 12 years, the *Kumbha-mela* is held here, where pilgrims come in millions. In the evening, thousands of lamps are lit and placed on the waters of the Ganga. The mythological legend of this very famous fair is as follows-the sanctity of the *Kumbha-mela* is traced to the times of the *amritamanthana* or the churning of the Ocean of Milk. The devas or Gods were under the curse of a sage. They could only get their strength back if they drank the Amrita or cream from the Ocean of Milk. But some of the Asuras or demons also wanted a share of the nectar. When after a lot of churning of the ocean, the sage Dhanavantri appeared with the *Kumbh* or the pot of nectar, the gods and the demons, both fought over being its claimants. In the confusion that ensued, Vishnu took the form of *mohini* (damsel) and flew away with the pot. And while he flew, a few drops of the *amrita* (nectar) fell at four places and these four places became very sacred, Hardwar being one of the four spots. Since the nectar was carried in a kumbh or pot, the fair came to be known as. the *Kumbh-mela*.

There is another legend attached to the festival. It goes to say that one deva or god took the form of a crow and grabbed the *kumbh* containing the nectar and flew away in the direction of heaven. He took 12 days to reach paradise and since the pot was heavy, he rested at four places. The

kumbh-mela occurs only at one place at a time and thus it takes place every three years. Pilgrims bathe in the sacred river and listen to religious discourses. There is a continuous recitation of scriptures, especially the *Vedas*.

Besides Hardwar, the Kumbh-mela is held at three other places, namely, at Allahabad downstream of the Ganga, at Nasik on the river Godavari and at Ujjain in Madhya Pradesh, on the river Sipra. The *Ardha Kumbh* or half-kumbh is celebrated every six years and on this occasion, pilgrims bathe in the holy rivers Ganga, Yamuna, Kaveri, Narmada and Godavari. South of 'Har ki Paudi' on the hill is the temple of Mansa Devi, another incarnation of Goddess Durga. Mansa which means *Kanna* or wish, is said to fulfil the wishes of its devotees.

After leaving Hardwar, the Ganga is a broad river flowing through the plains past Saharanpur, Meerut and Aligarh. At Farrukabad, it receives the Ramaganga. This is a major tributary of the Ganga in Uttar Pradesh. It has a 625 metres high dam in the Garhwal district of which when the waters are released, it irrigates 5.75 hectares of land. Its installed power capacity is 198 MW, supplying 200 cusecs of water to Delhi.

We have so far traversed through the course of the Ganga from the mountains to the plains and also learnt about the numerous pilgrim spots and their significance to the Hindus through the mythological legends that are attached to them. The mighty Ganga is a vast subject and to make you understand her better, I have divided the detailing into various chapters.

In the next chapter, after learning about Yamuna, we will meet again the Ganga in the plains on its remaining course of over one thousand miles. The flow of the river in the gangetic plains is gentle and so also is its slope. From the plains to the Bay of Bengal, there is a drop in its altitude of only 229 meters (750 feet). One third of the population of India lives in the three states through which the Ganga passes-Uttar Pradesh, Bihar and West Bengal.

Yamuna - The Black Goddess

The source of the Yamuna as mentioned in detail in the earlier chapter is near Yamunotri, in the Tehri Garhwal region, from the glacial mountain Kalindi Parvat, at a height of 3,463 meters (10,050 feet). It flows along a south-westerly direction and then turns eastwards, and cutting through the Shivalik hills, reaches the plains near Faizabad. The Yamuna is also known as Kalivadi and worshipped as a black goddess, riding a tortoise and carrying a water pot in her hand. It flows along the states of Punjab and Uttar Pradesh and has the same drainage pattern as that of the Ganga. The fertile belt between the two rivers with rich alluvial soil, is the Doab region, well-known for its sugarcane produce. Many great battles have been fought in this region in the past. Along its course of 1,287 kms. (800 miles), the Yamuna flows past the towns of Delhi, Brindavan, Mathura and Agra.

Near Mathura-Brindavan, on the banks of the river Yamuna is the small town of Bateswar. Historically named Bhuteswar after Lord Shiva. The town has many temples dedicated to him. Legend goes to say that the ruler of Bhadarwar and Maharaja Nainapurush had made a deal that if either of them had a daughter and the other a son, the two would be married. But it so happened that both of them had a daughter each. The daughter of the Maharaja of Bhadarwar was declared as a son and she was raised in that manner. When the two children grew older, as decided, arrangements were made for their marriage. After the wedding, the marriage procession was returning to the grooms house, and they stopped for a while to rest on the banks of the river Yamuna. The daughter of the Maharaja of Bhadarwar impersonating as the bridegroom was really afraid

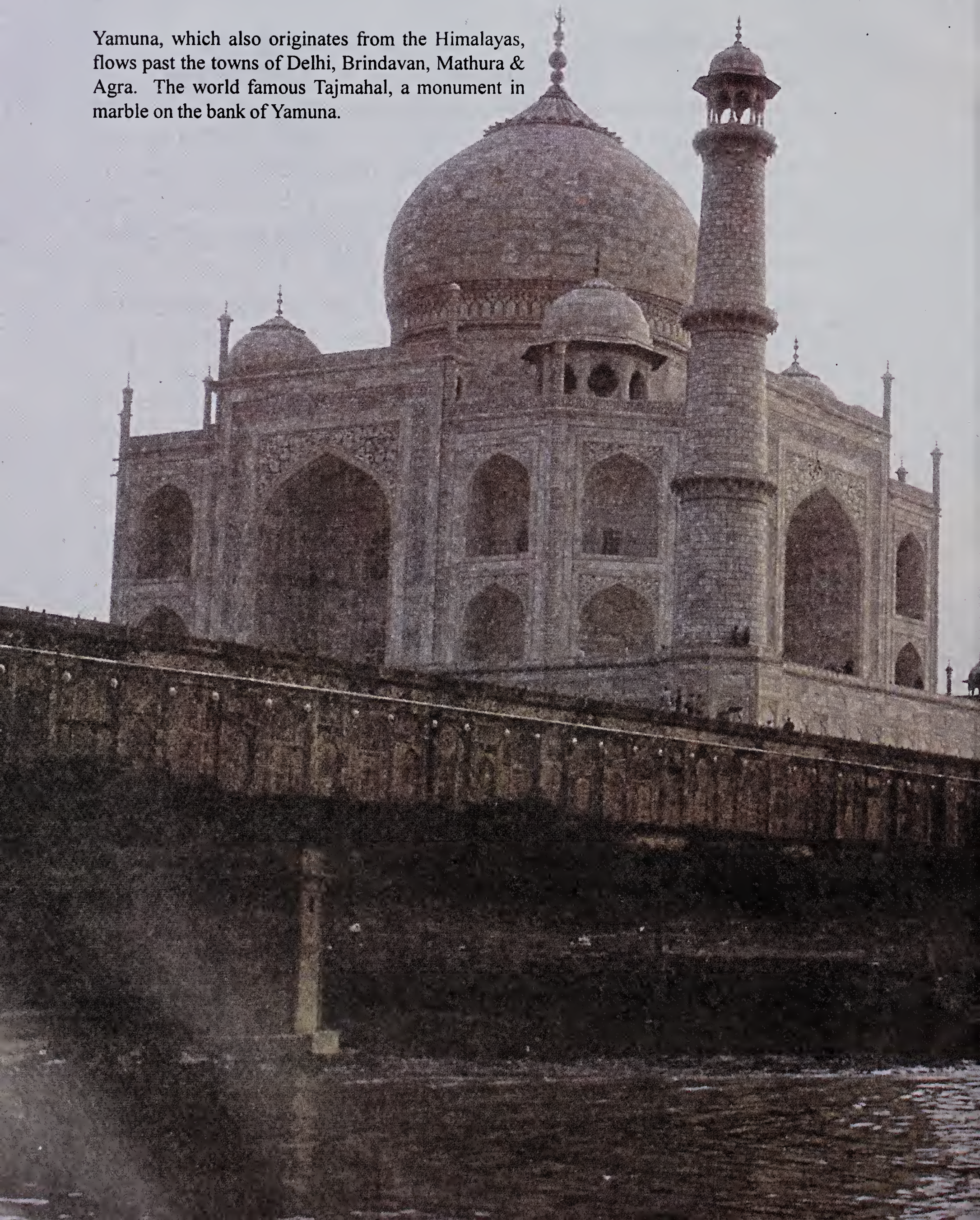
of the deception and out of shame, she jumped into the Yamuna. She received the blessings of Shiva and surfaced as Prince Vadni Singh. The Prince turned the direction of the river Yamuna from the east to the west and built 101 temples. He dedicated them to Lord Shiva, the Lord of the elements, namely *agni* (fire), *vayu* (Wind), *akash* (Ether), *jal* (water) and *prithvi* (earth). This place came to be known as Bhuteswar, a very popular pilgrim centre. The devotees make a wish and on it being fulfilled, they return to make an offering of a temple bell.

How can one talk of the Yamuna without mentioning the festival of 'Janmastami', the birth anniversary (on the eight day in the month of Shravana) of the much loved Lord Krishna! He is the most humane and endearing of the *avatars*. He is also known as *Nula Megha Shareera* or the body like a bluish cow. In the epic *Mahabharata*, Krishna plays a great role and the *Bhagvata* and the *Vishnu Purana* also give details of Krishna Avatar.

Legend says that Vishnu incarnated himself as Krishna to destroy the evil king Kansa who had created hell and furore amongst his people. Kansa imprisoned his own father and usurped the throne. His atrocities were unbearable until finally Bhudevi, Goddess of the Earth, complained to Vishnu. He came down to earth as a human being, Krishna to destroy Kansa and bring peace on earth.

Story goes to say that Kansa gave his dear sister Devaki in marriage to clansman Vasudeva. While he was escorting them home from the wedding he heard a voice from above proclaiming his doom at the hands of Devaki and Vasudeva's eight child. Enraged at hearing this, Kansa imprisoned his sister and brother-in-law in a dungeon. He killed all the seven children born to Devaki. But when the eight child was to be born, a heavenly voice told Vasudeva to take the baby boy born, across the river over the Brindavan, where he was to hand over the child to a cowherd Nanda. He would have to bring back his wife Yasoda's new-born girl instead. Strangely enough there was a great storm at the birth of Krishna and the guards were also drugged in deep slumber. Vasudeva carried the baby Krishna in a basket and crossed the river Yamuna, which was in full spate. Krishna put out his little foot and touched the waters and they receded

Yamuna, which also originates from the Himalayas, flows past the towns of Delhi, Brindavan, Mathura & Agra. The world famous Tajmahal, a monument in marble on the bank of Yamuna.







On the right bank of the river Ghagra or Sarayu, stands the old city of Ayodhya.

to make way for Vasudeva. After safely handing over Krishna in Nanda's house he also brought the baby girl and put her in Devaki's arms. And when Kansa grabbed the girl to kill her, she flew through his fingers and revealed herself as Yogmaya or the spirit of Shakti. Kansa was so furious that he ordered his *asuras* to kill all newborns of the land.

Krishna in the meanwhile, grew amongst rural surroundings, loved by one and all in Brindavan, especially Radha. He overcame various attempts on his life schemed by Kansa. He went to Mathura with his brother Balaram in response to a wrestling challenge from Kansa, where he finally killed the tyrant, and restored the throne to his imprisoned father Ugrasena. His life revolved around the affairs of his cousins, the Pandavas and the Kauravas. Eventually he took his people to Dwaraka on the coast of Gujarat, where he married two beautiful princesses, Rukmani and Satyabhama. Finally, he was caught up in the *Mahabharata* war where he revealed the sacred most of Hindu scriptures, the *Bhagawad Geeta* to Arjuna, thereby fulfilling the purpose of his incarnation, to destroy all evil from the land and bring peace.

Janmasthami is celebrated with great rejoicing all over the country but with much more splendour in Mathura, his birthplace. Devotees keep a fast on this day, which is broken only at midnight, the time of his birth. Temples and homes are cleaned and beautifully decorated and tableaux are taken out in procession, depicting the life and exploits of Krishna. Pots full of curds are hung in the streets and money tied around them and boys form a human pyramid to break them just like Krishna used to do. At midnight the idol of baby Krishna is placed in a small decorated cradle and arati is performed. The idol is ceremoniously bathed with curd, milk, honey, dry fruit and *tulasi* (*Ocimum basilicum*) leaves. This *panchamrit* is then given to the devotees as *prasad* or consecrated food after which they break their fast. The following day, passages are recited from the *Gita* and the *Bhagawat Purana* and hymns are sung in praise of Krishna.

On Kartika-Purnima day, fairs are held all along the banks of the river, but the Bateswar fair is most popular. Pilgrims take a dip in the river and worship at the temple of the river goddess Yamuna. There is yet another legend regarding the birth of the Yamuna. Surya, the sun god married Sanjana (fame and glory), daughter of the celestial architect Vishwakarma. They had twins Yama and Yami, Yama became the Lord of Death and Yami, the spirit of the river goddess Yamuna. Since the Yamuna rises from the Kalindi (Sun) mountain, she is also called Kalindi. Her other name is Surya-ya or daughter of the Sun. The Yamuna flows on from Agra till it reaches Allahabad where it merges with the Ganga.

Just about the confluence, the Yamuna is about less than a kilometre (half a mile) wide and is slow moving, limpid and blue in colour. Now we move ahead with our journey on the Ganga, civilizations along the river and its confluence with Yamuna and Saraswati at Prayag.

Civilization Along the Ganga

The evolution of India's civilization and culture is linked with the river Ganga. In fact, Buddhism and Hinduism, two of the greatest religions of the world, had its origin and also flourished in the Gangetic valley. The river has "silently worked through the ages, in an unceasing process, the regeneration of the soil of India, spreading life and strength everywhere. The Ganga, with its great tributaries, carries fertility and wealth, wherever it flows. There is hardly a river in the world which has contributed so much to material civilization and human thought as the Ganga."

In the *Mahabharata*, Ganga is called the *Tripatahga*, or the three pathed one, since it flows into three regions. Dr. K.M. Pannikar, in his "Geographical Factors in Indian History", observes, "In view of the immense concentration of population and resources, the Gangetic valley has always dominated northern India. It is the dominant area from which not only political power but economic forces and cultural movements spread to 'Aryavarta', to the region north of the Vindhya ranges. The earliest imperial traditions were developed in Magadh and whenever a dynasty successfully united the Ganga valley, it inevitably spread its authority over the entire 'Aryavarta'. The Mauryans, the Kanwas, The Bharasivas, the Guptas, the Muslim Sultans of Delhi, the Moghuls-indeed the entire succession of north Indian imperial dynasties-based their power on the Gangetic valley. So strong was this tradition that the Ganga-Yamuna *torana* became the symbol of imperial sway. Every dynasty, even in middle India, once it established its authority in its homeland, dreamed of consolidating its rule by establishing itself in the area. The Satavahanas of Pratisthan, the kings of Avanti and even the Peshwas of Poona realized that their

imperial sway could be maintained only if they controlled the gangetic valley. The British advancing from the sea came to the same conclusion."

From Hardwar, the vast Ganga begins its journey through the dry plains of Uttar Pradesh in a southerly direction and then turns south-easterly, passing through the city of Kanpur till it reaches Allahabad or Prayag, where the Ganga, Yamuna and the Saraswati merge. Tulsidas in his *Ramacharitamanasa* called this *Sangam* or the confluences of three rivers, and also *Teerth Raj*, the Lord of Holy waters. One of the most sacred places for Hindus throughout the Indian peninsula, Prayag has been mentioned in the travelogue written by the Chinese traveller Huen-Tsang, who came to India in the 7th century A.D. In it, he writes about a magnificent religious festival he witnessed, called the *Kumbha mela*, about which you have already read in detail. It is said that Shankaracharya gave an organized form to the *mela*.

Kalidasa in his *Raghuvansha* has written beautifully about the confluence. He says, "when the water of the Ganga and Yamuna mingle, it appears as though diamonds and sapphires were woven together in a string; as though a flock of white swans had suddenly run into another flock of black swans; as though a garland of white lotus buds were interspersed with blue lotuses; as though streaks of lightening had merged into a sheet of darkness; as though a clear blue sky were spotted with woolly clouds of autumn."

Jawaharlal Nehru's passionate love for his country and more so for his birth-place Allahabad has been reflected in his last testament, thus-"I am proud of this noble heritage which was and still is ours, and I am aware that I too, like all of us, am a link in that uninterrupted chain which finds its origin in the dawn of history, in India's immemorial past. That chain I do not want to break, for I cherish it and find my inspiration in it. It is in testimony of this spend as a last homage to the cultural heritage of India that I request that a handful of my ashes be thrown in the Ganga at Allahabad so that they may be borne to the vast ocean which beats on the shores of India."

Ganga Dusshera or the bathing festival is a very auspicious day for the Hindus. This bathing festival is celebrated throughout India in the Hindu

calender month of 'Jaistha' (May-June). On Sukkha-Dasami day, every Hindu has one wish-to take a holy dip in the sacred Ganga. On this day, due to the austere penance of king Bhagirath, invoking Bhrahma, Vishnu and Shiva, the Ganga had descended on earth. The Hindus firmly believe that their sins will be washed off by taking a holy dip in the Ganga on this day. The word Dussehra is derived from the Sanskrit phrase, *Dasa-bidha-pap-hara* or the destroyer of ten kinds of sins. Wherever the people cannot reach the Ganga, they take a dip in a pond or local river or sea and say Har har Gange. Fairs are held and 'Mata Ganga' is worshipped with great reverence. Prayag or Allahabad is therefore a very important religious centre.

The most important festival in the Hindu calender month of 'Magha' is the *Makar Sankranti*. This is the month when sun passes away through the winter solstice from the Tropic of Cancer to the Tropic of Capricorn, *Makara*. It is believed that this was earlier a festival that was celebrated in the colder regions, when people prayed for the warmth of the sun. The Aryans, when they migrated to India from the north-west, must have continued the worship. This festival is celebrated differently in different parts of India.

In the coastal regions of Tamil Nadu, Andhra Pradesh and Karnataka, it is celebrated as a harvest festival and is called *Pongal Sankranti*. It is dedicated to Indra, God of Rain and is celebrated on the 13th, 14th and 15th of January every year.

Lohri is the harvest festival of the north, mainly celebrated in Punjab and Haryana. The day after Lohri is the *Makara Sankranti*. In Uttar Pradesh, a very big fair is held at the confluence of the three rivers at Allahabad. After a ritual bath in the river, the Hindus prepare a dish made of rice and *dal* (lentils) called *khichri*. It is also called the Magha Mela. The festival is also celebrated on the banks of the Ganga at Hardwar and Garh Mukteshwar in Uttar Pradesh and at Patna in Bihar.

Jawaharlal Nehru in his *Will and Testament* has paid this fitting tribute to the Ganga- "I have been attached to the Ganga and the Yamuna rivers in Allahabad ever since my childhood and as I have grown older, this attachment has also grown. I have watched their varying moods as the

seasons changed, and have often thought of history and myth and tradition and song and story that have become attached to them through the long ages and become part of their flowing waters. The Ganga, especially, is the river of India, beloved of her people, round which are intertwined her racial defeats. She has become a symbol of India's age-long culture and civilization, ever-changing, ever-flowing, and yet ever the same Ganga. She reminds me of the snow-covered peaks and the deep valleys of the Himalayas, which I have loved so much, and of the rich and vast plain below, where my life and work have been cast."

The other river which merges into the Ganga is the sub-terrain Saraswati. According to the legend, it also had its birth in the Himalayan region. After it enters Punjab, it flows by the famous historical site Kurukshetra in Karnal district in a south-westerly direction. From here it enters Rajasthan. Geologists say that due to some earth movement in the Himalayas, the main drainage of the Saraswati was taken away by the Yamuna, which usurped many of its tributaries. And by the time the Saraswati reached the desert of Rajasthan, it disappeared from view. The sacred tank at Pushkar near Ajmer is supposed to be situated on the bed of the Saraswati. The Luni river in Marwar district of Rajasthan as well as the Ghagar river in Punjab are believed to be tributaries of the original Saraswati.

During the *Vedic* times the Aryans are supposed to have flourished on the banks of the Saraswati. The *Vedas* are said to have been first revealed on the banks of the Saraswati by a sect of priests known as 'Saraswat Brahmins.' The Saraswati river though dried up, is believed to flow underground from the deserts of Rajasthan till it joins the Ganga and Yamuna at Triveni. This river is not mistaken for the one which flows as a stream and joins the Alaknanda, about which you have already read in the earlier chapters. The Saraswati is also identified with the Goddess of water. In the *Rig Veda* she is referred to as *vach* or speech and is the Goddess of eloquence. Later she becomes the wife of Brahma the creator and is also called Brahmi. She is supposed to have created the Sanskrit language as well as the arts and sciences. She is symbolized in the form of a beautiful lady with two arms holding a flute.

The river Saraswati is associated with the Surya-Grahana or the solar eclipse. On this day, the Hindus take a holy dip in tanks, ponds and rivers and pray to the Sun god for the souls of their dead ancestors. They fast for the day till the eclipse is over and after the ritual bath, they distribute alms to the poor. Legend says that the demons Rahu and Ketu caught up with the Sun and caused the eclipse. The very orthodox Hindus even beat drums on this day to scare away the demons.

Thousands of pilgrims take a holy dip at Prayag, Hardwar, Varanasi and Soron. But the largest number are found at Kurukshetra, in Haryana, 160 miles from Delhi. Here, on the banks of the river Saraswati is the tank of Thaneswar, which is considered most holy. Kurukshetra is also called *Dharmkshetra*. *Dharma* or virtue triumphed over evil, here in the battle fought between the Pandavas and the Kauravas. This place besides being the site of a historical event, has also many legends attached to it. History propounds that the evil Kauravas had the kingdom of their cousins, the Pandavas. A fierce battle ensued between them and finally the Kauravas were completely defeated. The funeral rites of the slain were performed at the sacred tank of Thaneswar. It is here on the banks of the Saraswati that Krishna expounded his philosophy, which came to be known as the Bhagwada gita, the very essence of Hindu philosophy.

Ganga, Yamuna and Saraswati make a confluence at Allahabad which is also known as Prayag.



After receiving the waters of the Yamuna and the Saraswati at Allahabad, the Ganga now flows further on and not far away, 129 kms. (80 miles) downward, it reaches the city of Benaras or Varanasi. This is the most famous and ancient city on the banks of the Ganga, and one of the most ancient cities of the world, formerly known as Kashi. The main temple here is dedicated to Lord Vishwanath (Shiva) and the *lingam* here is one of the twelve most sacred Jyotir-lingas. The temple has dominated the life of the city from very ancient times. The Hindus firmly believe that by the blessings of Shiva and Parvati, whoever dies at Kashi will be washed of all sins and will go straight to heaven. The town has derived its name from the two tiny tributaries of the Ganga, the Varuna and the Asi, on which it stands. There is a very interesting legend connected to this city.

There was a holy man named Vyasadeva who was also very proud. He decided to build another city near Kashi and named it Vyasa-kashi. He then prayed to Shiva and pleaded with him to grant him his wish, which was that whosoever died in Vyasa-kashi would also go to heaven. Shiva at once granted him his wish. And so Kashi lost its importance. The holy priests of Kashi prayed to Goddess Durga to help them.

Next day, an old woman went up to Vyasadeva and asked him, "Where does one go if one dies at Vyasakashi?"

To which he replied, "To heaven dear lady." The old woman pretended to be deaf and asked him again, "where did you say, one goes?" "To heaven," he replied a little irritatedly, "I can't hear you well." "Can you say it again?" "One turns into a donkey," he yelled at her and shut his door. "So it will be," said the old woman, who happened to be none other than goddess Durga. And so the old people make sure that they do not spend their last days in Vyasakashi.

The city of Benaras is a famous centre of Sanskrit learning. Scholars of Sanskrit have at one point or the other, studied in Benaras. Even Prince Siddhartha, who relinquished everything in life and attained enlightenment as the Gautam Buddha, went to Benaras to study Sanskrit. Benaras has 5 very famous sacred ghats and altogether, there are 74 ghats. People carry out their *pujas* on the river banks, not only on the occasion of

The evolution of any civilization and culture is linked with the river of that area. The most famous and ancient city, a seat of learning, Kashi (now known as Benaras) developed on the banks of the Ganga.



great melas but all the year round. Well known for its bathing ghats, temples, ashrams, dharamshalas and mosques and for its brocade and silk, Benaras is also a popular tourist centre for visitors from all over the world.



Situated $6\frac{1}{2}$ kms.(4 miles) north of Varanasi is Sarnath. It is one of Buddhism's holiest places, appropriately situated in the land of it's founder's birth. It is here at Sarnath that Buddha preached his famous five sermons and the eight fold path.

Flowing further down from Varanasi, the Ganga passes the town of Sonapur, famous for its cattle fairs for centuries. The river Sone joins the Ganga on its right bank near Sonapur.

After leaving Kashi, the Ganga flows on its journey to the sea, touching numerous cities and towns. Three other tributaries join the Ganga on its left bank- the Gomti, Ghaghra and the Gandak. At the confluence of the Gomti and Ganga is the city of Lucknow, the capital of Uttar Pradesh and a centre of Muslim culture, also famous for its *Chikan* embroidery.

Ninety-two kilometers south west of Patna is the town of Gaya, a very important pilgrim place for the Hindus,

who come here to offer *pindas* or funeral cakes. The temple of Vishnupada built over a footprint of Lord Vishnu on the rocky west banks of the river Phalgu is the largest and most important temple of Gaya. 13 kilometers south of Gaya, in Bihar, against the Ganja-Bhindas Jethian range of hills and situated on the banks of the river Niranjana or Lilajan, is the sacred town of Bodh Gaya, where along the river bank under a pipal tree, (*Ficus religiosa*) on Buddha Purnima day, the Buddha attained *Bodhi* or enlightenment. About 4 kilometers north of Bodh Gaya, the river Niranjana joins the Mohane river and the united streams of the two form the Phalgu river which in turn merges with the Ganga.

The festival of Buddha Purnima is celebrated with great reverence on the Vaishakha Purnima or the full moon day in the month of Vaishakha (May). It is mainly celebrated as the birth anniversary of the Gautam Buddha. He also attained *Mahaparinirvana* on this day at Kushinagar in Uttar Pradesh. The Buddhists believe that Prince Siddhartha (Gautam

The city of Lucknow, famous for its *chikan* embroidery and a centre of Muslim culture is situated on river Gomti.



Buddha), his wife Yashodhara, his Charioteer Channa, his disciple Ananda, and the Bodhi tree under which he attained enlightenment, and also his horse Kantaka were all born on the same day. Thus it is revered as a thrice sacred day.

The part mythical and part historical story of the birth and life of Buddha will give you a deeper understanding of this great preacher and founder of Buddhism. The Aryan King Shuddhadana of Kapilvastu was married to Mahamaya., the daughter of the Raja of the Kolyan clan. At the age of 45, she gave birth to a baby boy (around 563 B.C) and died seven days later. The baby was brought up by her younger sister Gautami and he was named Siddhartha Gautama. His horoscope predicted that he would either be a great world leader or a religious head. King Shuddhodhana did not want his son to be an ascetic and at the age of 16, Siddhartha was married to his cousin Yashodhara. Within the court of his palace grounds, he led a happy married life, unaware of the sufferings of the outside world. When he was 29 years of age, he came across an old man bent from his back, a sick person, a dead body and a holy person. Awareness of the sufferings of life dawned on him. On returning to his palace, he was informed about the birth of his son Rahul. But instead of rejoicing, he decided to relinquish all his luxuries in his quest for truth. He renounced his kingdom, his son and his wife, and left that very night. This is known as Buddha's *Bhinishkraman*. He crossed the river Anoma and asked his charioteer to return to the palace with his horse and his robes. From then on, he continued his journey for his quest for truth until six years later he attained Enlightenment. He continued to preach his philosophy till in his eightieth year on Vaishakha Purnima day, he attained his *Mahaparinirvana* or the 'great decease'.

The festival of Buddha Purnima is also mentioned by the Chinese traveller Fa-Hien, who visited India in the fifth century A.D. The celebrations are traditional and very ancient, consisting of continuous chanting from Buddhist scriptures and worshipping of the statue of Buddha and distributing food and clothing to the sick. The Bodhi tree is also worshipped with milk and incense (scented water) sprinkled on its roots and its branches brightly decorated with garlands and colorful flags. Monks

and laymen, all meditate alike and reflect on the great Eight Fold Path that the Buddha preached-right view, right aim, right speech, right action, right livelihood, right effort, right mindfulness and right contemplation.

The most outstanding site at Bodh Gaya is the Mahabodhi Temple, one of the oldest of its kind. Four towers rise from its four corners, giving it dignity and solemnity. A foliage of peepal trees surround it. To the west of the temple is the holy peepal tree, considered to be the oldest historical tree in the world. Other meditation sites in the vicinity are the *Vajrasan* (the throne of the Buddha), the *Animeshalochana* Stupa, the Chankramana and Ratnagar Chaitya. In 1945, the Chinese built a temple and monastery on the west side of the Mahabodhi Temple and in 1938 the Tibetan Mahayan Monastery was built. Besides this, the Japanese built a beautiful temple and the Burmese and Thai monasteries are also places of meditation. The Archaeological Museum is also a tourist attraction.

It was at Bodh Gaya that the Budha preached most of his sermons and it was from here that the doctrines of Buddhism spread to the Far East.

Now the Ganga enters the state of Bihar and it plays a dominant role in connecting the tributaries and channelizing the irrigation system of the state. From Patna, the Ganga moves eastward through Jehangira, Bhagalpur and Dhulia on the Bangladesh border. Not very far from Patna, the state capital, it is joined by three large affluents-the Ghagra, the Gandak and the Son. The important rivers that join the Ganga from the north are, from west to east, the Ghaghra, Gandak, Burhi Gandak, Kosi, Mahananda and their tributaries. In the Indian calender month of Kartika, a very popular fair is held on the banks of the river Gandak, just near the confluence with the Ganga. This is the Sonepur Mela famous through history for its sale of elephants and later horses and cattle too.

It is said that in prehistoric times a great fight took place between *Gajaraj* or the elephant. Lord of the forest and *Garah* the crocodile, Lord of water. A story in the *Srimad Bhagawad* tells us of a huge lake near the Trikut hill surrounded by dense forests with wild animals. An elephant came to bathe in the lake in which lived a crocodile. All the crocodiles of the lake and the elephants of the forest joined the fight.

In the end, the elephant began weakening and appealed to Hari, the Supreme God to save him. Hari helped free him in the presence of Hara and the other gods.

Hindu mythology further tells us that in his previous birth, the crocodile had been a Gandharva chief named Hubu. He had gone to the lake with his consorts to bathe, where he playfully caught the leg of a holy sage, Dewala Muni, who was also bathing in the lake. The sage was enraged and in his fit of temper, he cursed Hubu and turned him into a crocodile. He remained that way till Vishnu cut his throat with his *chakra* to save the elephant. It is also believed that Rama built a temple here on his way to Janakpuri to win Sita's hand in marriage. The temple is dedicated to Harihar Nath Mahadeva and the fair is called Harihar Chhatra Mela. The fair lasts for a fortnight and the main days are two days before and after full moon. During the rainy season, the Ghaghra, which joins the Ganga at Chapra, often overflows its banks and inundates the region and yet it is a very important waterway of Uttar Pradesh.

The Kosi drains a vast region of eastern Nepal and that includes the highest mountain peak in the world, Mount Everest. Tradition says that Janakpuri, in the Maithili speaking region of Nepal was the birthplace of Sita (*Ramayana*). And ironically, though the impressive river Kosi flows down from the Himalayan summit to the border of India, it ends up as a listless stream in the backwaters of the North Bihar Plains.

The river Karnali flows down in an easterly direction from the south of the Kailash mountain range and along the Indo-Nepalese border, then turns south through the heavily forested Terrai zone and then merges into the Ghaghra. The Gandak is a snow-fed river formed by the union of 7 Himalayan streams and flowing down from Nepal, it enters Bihar near Triberu and joins the Ganga near Patna, the former ancient city of Pataliputra, ruled by king Ashoka. The Gandak is also called the Trishula Ganga in Nepal, since it is formed by the confluence of 3 smaller rivers. The Burhi Gandak, though not snow-fed, has a continuous flow of water throughout the year. The river Kosi comes down from the mountains of Nepal at Chatra and flowing alongside the hills of Rajmahal, it enters Bihar as a mighty river, carrying with it sand and silt. During monsoons, it

overflows its banks and causes havoc. The Mahananda is a very important easterly tributary of the Ganga in Bihar.

From the south, the tributaries of the Ganga are the Karmanasa, Son, Punpun, Phalgu, Sakri and Kiul. Of these, the Son is the main river which has a vast networks of irrigation canals all over the state. The principal rivers of Chhotanagpur to the south of Bihar, are the Damodar, Suvarnarekha, Barakar and Koel. The Damodar rises from the Pakamu district and flows eastwards between the plateaus of Ranchi and Hazaribagh. The water of this great river is controlled and used for irrigation and power generating purposes, by the Damodar Valley Project which aims at an integrated economic development. For this, hydro-electric plants and multipurpose storage dams have been set up to irrigate vast tracts of land by means of canals. The Damodar Valley Corporation executes these projects. The other rivers mentioned are almost dry throughout the year and only in the rainy season will you find some water in their beds.

Now the Ganga enters Bengal. The boundary between India and Bangladesh lies between Murshidabad and Rajshahi. Murshidabad with its many forts and palaces and famous for its silks was an important seat of the Muslim Nawabs. Further eastward on its course, the Ganga begins to split up and take the form of a delta. The Gangetic Delta is vast, almost 48 kilometers from the Bay of Bengal. The two main streams or channels are the Padma, which flows south-east to Goalundo in Bangladesh and the Hooghly. The Padma is joined by the Brahmaputra and the river is now called Meghna. Further down, the Hooghly and Padma meet again and near Ganga-Sagar, the combined rivers break up into a hundred or more channels, before it flows into the sea in the Bay of Bengal, after traversing a course of 1600 miles or 2465 kilometres.

On the river Hooghly, about 144 kilometres upward from the sea, is the port of Calcutta, another famous city, over which looms the great engineering feat of the British, the Howrah Bridge.

Calcutta with its big international port is today a very busy commerce centre of India. Almost half of India's sea trade is handled at this port. The Kidderpore Docks with its huge cargo ships, handle millions of tons of goods, in the import and export trade. The main exports are jute, animal

hide, coal and tea. India also imports salt, petroleum and machinery. Thousands of people are employed at the Kidderpore Docks and in the ship-building industry. Although a large port, Calcutta being over a 100 kilometres inland from the sea, it has its hazards. Due to the large deposit of silt in the river, navigation becomes difficult. When the silt builds up, it is dropped by the river to make sand banks, but due to the change of course of the river, the exercise becomes futile. Very often, the river channel has to be dredged to keep it open and this leads to a delay for the heavily laden boats or ships, who have to wait till all the silt is cleared off.

The city of Calcutta began as a European trading station in the year 1700. Later it was the capital of the British India until 1912. A very crowded city, besides the sugar, paper, chemicals and cotton goods manufactured, the industrial centre of Howrah across the river has iron and steelwork factories making cars and trains. Near the river banks you will find many jute mills manufacturing hession, canvas and sacks. The raw jute fibre is brought from upstream regions by boat. About 50 kilometres from Calcutta is the beautiful Diamond Harbour. The river here is so wide that you cannot see the other shore. The small tributary of Rupnarain falls into the Ganga here.

The most prominent festival of all the Bengalis is the Durga Puja or the worship of Goddess Durga. The Hindus in Calcutta believe that Durga, the sister of Ganga was born in Calcutta. Legend says that she went to the Himalayas to become the second wife of Shiva. Every year she returns home to visit her parents residing at the mouth of the Ganga. She stays with them for a week and then returns to the Himalayas. This is the time when 'Durga Puja' is celebrated. During this period in every temple, the devotees build a statue of goddess Durga, resplendent in lavish and beautifully adorned clothes. The statue made of papier-mache is immersed in the Ganga when Durga returns to the Himalayas.

There is an interesting story relating the birth of Durga. It says that an *Asura* or demon was troubling the three worlds of heaven, earth and the space between. His atrocities became unbearable and Shiva tried in vain to kill him. When he could not succeed he sought the help of the

other gods. On Shiva's advice, the Gods performed a sacrifice wherein they all put their female *Shakti* (energy) into the sacrificial fire, from which arose a very beautiful woman and she was called *Shakti*. The gods requested her to kill Mahishasura. And on doing so, she is also called Mahishasuramardini. And when she killed the demon Durga, she came to be known as Durga. Durga is also called *sarba janani* or a goddess for all.

The image of Durga is shown riding her mount, the lion, as well as in the act of killing the demon Mahishasura. The image is worshipped for 10 days with a lot of fanfare and on the 10th day, 'Vijayadashami' day, the day the goddess killed the evil *Asura*, the statue is immersed in the river. This immersion also symbolized Durga's return to her husband Shiva from her parents home.

One of the mouths of the Ganga is at the southern tip of Sagar Island in the Bay of Bengal, where the Hooghly meets the sea. Here on this island, the Hindus believe that a narrow creek on the southern side of the Ganga is Saugorkhal where the Ganga came down to redeem the 60,000 sons of Sagara, who had been turned to ashes by the curse of Sage Kapila. Here, on 'Makara Sankranti' day, at the same time as in Hardwar and Allahabad, a big fair is held. People come from long distances to take a holy dip and Ganga Ma or the Goddess Durga is worshipped. The image of Sage Kapila is also worshipped. Materially, the end of Ganga is under the sea, 97 kms.(60 miles) further south.

The Fertile Gangetic Plains

Descending from the Himalayas, the Ganga plains are a rich and fertile stretch of land with tropical vegetation and rice fields. As compared to this, the basin of the Sutlej consists of dry thorny scrubs. And when compared to the Indus plains, the natural vegetation of the Gangetic plain is different, since the rainfall gradually increases as one moves eastwards. From Punjab to Allahabad in Uttar Pradesh, is the dry sub-region, which receives an annual rainfall of 20-40 inches (50-100 cms). The vegetation is quite sparse in the area. Acacia, Moringa, Peganum, Tecoma, Rhus, etc (botanical names) and a few variety of palms are found in this region. There are some areas of grassland interspersed with Butea, Zizyphus, Randia and Bombax. Where the soil is alkaline, the Salvadoca is commonly found.

From Allahabad to West Bengal is the lower-gangetic region, with an annual rainfall of 76-100 inches (190-250 cms), the natural vegetation grows in abundance, with the Mangifera, Ficus, Polyalthia, Largeestomia, Areca, Lasuarina, Borassus, Artocarpus, Pterospermum and Bombax forming the natural flora of the plains. Several types of grasses and aquatic plants are found in the vicinity of tanks and small reservoirs.

The Sunderbans form the third part of the Gangetic plain. This unusual region is around the delta of the Ganga. Stretching out from India into Bangladesh. The main characteristics of this region are its marshy swamps and interconnected waterways. The 'tidal swamp forests' as they are called, cover a vast area of over 6,000 square miles (15,500 square kilometers), the largest swamp forest in the world. The sea waters rush inland through narrow creaks. The flora of the Sunderbans is of great interest to the

botanist, with infinite varieties of plants and moreover, the uncommon growth conditions makes it all the more interesting for study. Evergreen trees and shrubs, like the mangrove or littoral forests are prolific in this region. Typical mangrove trees like the *Rhizophoras*, *Kandelia*, *Brugeira* and *Ceriops* are some of the 36 species of mangrove trees found in the Sunderbans but the '*Aoicennia officianlis*' is found in largest numbers. These mangroves are tall standing roots through which the boats weave their way. Their spikes stick out of the muddy ground and absorb air from the inner submerged roots. In the salty marshlands are found the *Sindir* (*Heritiera minor*), *goran* (*griops roxburgliana*) and *kewa* grass. The waterlogged Delta region between the Damodar and Hooghly river is full of 'Kana' (blind) rivers. It was once the home of the alligators and turtles and that of the tigers. But due to rapid urbanization, these animals and amphibians are getting sparse.

Palms, like *Nipafruiticans*, *Phoenix paludosa*, coconut palms and *calamus* (cave) are also found. Savannah grass covers most of the little swamp islands. The vegetation is thick and they help to bind the mud and prevent it from being washed away. Elephant grass and screwpine grow near the various streams, ponds and canals. The dense forests of the Sunderbans give economic support to the inhabitants by means of produces of timber and firewood.

Almost the entire region of the middle and lower Gangetic plain, is covered with evergreen tropical forests, extending right up to the slopes of the eastern Himalayas and Assam. Deer and water-buffaloes with their swept-back horns are found in abundance in the slopes of the Assam Himalayas along the Brahmaputra as well as in North Bengal. In the green and dense rain forests are found the single-horned rhinos, the elephants and the macaques (monkey) swinging in the tall canopy above. A great variety of birds such as sarus cranes, teals, ducks and swans have their homes here. The dense undergrowth is infested with reptiles. Animals visit the perennial pools of water and water holes in summer, when the riverlets dry up. In the savannah region, where there are open forests and low trees, you will find many grass eating animals such as the elephant, sambar deer, wild boars and the chital deer. If you visit the Kanha National

Park in Assam or the Corbett National Park in Uttar Pradesh, you will find them grazing in herds.

On the western plains of the Ganga, between Delhi and Jhansi around the Shivalik ranges, are the Sisoo and Khair forest. There are the small-leaved blackwood thorny *Acacia* trees used abundantly in making furniture and carved handicrafts. Between Delhi and South Rajasthan you will find a landscape of stretches of open land dotted with trees. This is a tribal homeland and the sal and babul forests are specially cultivated here. Though most of the Gangetic plain is cultivated, a variety of wild life still exists. In the forests of the terai are found tigers, panthers, gerbils, antelopes and the black and gray gazelles.

On most of the Gangetic plain there is a great thickness of alluvium which yields very fertile soils of varying textures. Farming is the main source of living of the people on the Ganga plains. Crops however depend on the availability of water. Systematic irrigation through canals has made the belt more fertile and whereas rice is the main crop grown in the delta region, in the middle Gangetic plain along with some rice, the more staple crop grown is wheat as well as maize, millet and sugarcane. Further up, where it is drier, wheat becomes the most staple crop, followed by barley.

To reach the water table, tens of thousands of hand dug wells are used by the farmers. A popular mode of drawing water from these wells is by the oxen walking down an inclined slope and bringing up the water. Other animals along the Ganga are the elephants. They are tamed by the people and trained to move the logs from the forests to the river. These logs are floated on the river, till they reach the timber mills. Mahouts bathe the elephants on the river front. Buffaloes are another domesticated species of animals who are harnessed to the plough and help in the farming. They are also used to turn the water-wheels to irrigate the fields.

The fertile and densely populated valley of the Ganga is an important trade centre. Though long used by innumerable country boats and steamers, navigation is now restricted to only the lower parts of the river. Due to the various canals draining the waters of the Ganga as well as fluctuating water levels, trade along the river became less important. The railway and surface transport became the new mode of transportation. Old river

ports began to decay and only in the delta region, below Buxar, where many places are only accessible by water, regular boat services are still plying. And so, on the Ganga waters, you will find fishing boats, house boats called *oolaks*, barges piled with cargo and even motor-boats.

Dyeing is a thriving industry along the river banks. Though animal dyes are not used, vegetable dyes and dyes from plants such as saffron and indigo are often used. Fabrics with bright strong colours are rinsed in the Ganga and spread along its banks to dry.

In spite of the large quantities of waste material which is drained into the Ganga, the river is believed to carry no diseases, such as typhoid or cholera (water-borne diseases). The Hindus believe that this is because of the pure and holy properties the river possesses. The Ganga is considered so holy that the Hindus immerse the ashes of the dead into the river, with a firm belief that by its blessing, a new life is given to the dead persons. The people who have lived along the Ganga on its banks or on the plains, who have through the centuries spoken different languages and worn different clothes, have had different customs and different foods, had one common bond—they loved and revered the Ganga from its source in the Himalayas to the sea in the Bay of Bengal. Ganga, the eternal Ganga, flows on.

The Mighty Brahmaputra

The Brahmaputra is the other great river of the Himalayas. In fact from its source in the Mansarovar region to its mouth in the Bay of Bengal, the Brahmaputra is actually 250 miles (400 kilometers) longer than the Ganga. Considered to be a great river of Tibet, north-eastern India and Bangladesh, the Brahmaputra has a total length of 2,900 kms. (1,800 miles). A greater part of its course lies outside the Indian territory.

The source of the Brahmaputra is in the Kailas range of the Himalayas in western Tibet, from a huge glacier mass just south of the lake Gunkynd-Tso and it is nearly 5,100 meters above sea-level. The river flows out under the name Tsang-Po or the meaning in Tibetan language, 'the purifier'. Other tributaries join the infant river near the pass of Maryum La 5,150 meters (16,900 feet). This pass separates its basin from that of the Mansarovar Lake area, the source of the other two rivers, the Indus and the Sutlej.

The Tsang-Po flows parallel to the Himalayas at a rough distance of 160 kms. (100 miles) from the main chain. It flows through southern Tibet for a length of 1,126 kms. (700 miles). It cuts across the Tibetan plateau which has icy winds blowing across it through a greater part of the year and the climate is bitterly cold. It receives many tributaries and for most parts the area is uninhabited. Only along its banks will you find a few small settlements and tents with flocks of sheep grazing nearby. River Tsang-Po boasts of one of the most incredible navigation systems in the world, with boats plying in it for 644 kms. (400 miles) at a height of 3,658 meters (12,000 feet) or more above sea level. These fascinating looking boats or coracles, are made of animal hide stretched over a

framework of slender willow branches, making them very sturdy and strong. In some areas, boats shaped like oblong boxes are used as ferry boats. The wild and unpredictable course of the river and the deep gorges, become impassable natural barriers and it was only with the invention of bridges by the Chinese, that proper routes were made possible. Lianas and bamboos were first used which is a very ancient and traditional form of building suspension bridges. Later iron chain bridges took their place. Some of these bridges have a span of over 300 feet.

At Tsela Dzong, the Gyamda river joins the Tsang-Po. At the point of their junction, the river is more than three kms. (2 miles) wide. It moves further eastward and flows along placidly and at Pe 2,950 meters (9,680 feet) where it is 603 meters (660 yards) wide, it abruptly turns north-east and then north. At the eastern end, the ranges of the Himalayas rise again towards the scarcely known mountain masses of Namche Barwa 7756 meters (25,446 feet) and the Gyala Peri 7,150 meters (23,458 feet), which are at a place almost 13 kms. (8 miles) apart. The Tsang-Po, now up to a kilometer wide, approaches these mountains slowly and suddenly narrows down to only 90 meters. The Tsang-Po cuts through these edifices

The Brahmaputra has a total length of 1800 miles. It originates in Nepal, passes through India and flows through Bangla Desh before terminating in the Bay of Bengal. Its bed flanks to a breadth of 5 miles and even more at Dibrugarh.



by way of a succession of stupendous gorges and crashes down between huge cliffs into a deep gorge. The river runs north-east and then making a hair-pin bend, it sharply turns south-east to reach the plains.

The great Yarlung gorge, as it is known, is joined by the tributary Yekhung Chu at a little distance north-west of Lhasa. It drains the heavily glaciated Nyenchentanglha group of mountains which are over 7,000 metres (23,100 feet) high. As it flows south-west, the Yarlung passes a region which has many hot springs and then moves on through extremely dense rain forests to reach the town of Medog, only 1,500 metres (4,950 feet) above sea level. Here the Tsang-Po turns south-west and past Tuting, it reaches the N.E.F.A. territory (now known as Arunachal Pradesh and Nagaland) and finally the plains of Assam, to the west of the town of Sadiya. Near Sadiya, the river receives the tributaries of Dibang and the Sesiri, the river Lohit from the east junction, changes its name from Tsang-Po to Brahmaputra (the river of God Brahma). Now it is several kilometres wide and is divided into many branches heading westward through the plains of Assam, for a length of 724 kms. (450 miles). Its channels oscillate from side to side over a bed which is sometimes 6 miles wide. It forms many islands in its course and Majuli is one of them, covering an area of 1,256 square kms. (485 square miles). During a flood, the Brahmaputra resembles an inland sea, when the waters overflow its banks and run riot.

The Brahmaputra is once again forced to narrow down by the Shillong massif, sweeping around the Garo hills and flowing by the busy and well-known town of Guwahati, the river enters the alluvial plains of Bangladesh, through which it flows for another 142 kms. (150 miles) and finally merges with the Ganga at Goalundo. From the confluence of Teesta up to Goalundo, the Brahmaputra is called Jamuna. The united stream of the Ganga and Brahmaputra flows south-east under the name Padma and it is now a broad estuary. It is known as the Meghna as it reaches the Bay of Bengal. The two rivers together form one of the largest known submarine delta, consisting of material eroding from the Himalayas. The Brahmaputra is considered to be one of the most important rivers in the world, not only for its size but also its utility. It drains an area of 934,990 sq. kms. (361,000 square miles). The turbulent currents of the Brahmaputra

not only build up land in some places but also fertilizes it and distributes its produce. Navigable by steamer right upto Dibrugarh, 1,288 kms. (800 miles) upwards from the sea, the river is a waterway for commerce and navigation both in India as well as Bangladesh.

The Brahmaputra river has along its course many important cities, trade centres and places of historical significance. To trace them, let us go back to the source of the Brahmaputra in Tibet where the river takes the name Yarlung Tsang-Po. The first proper settlement, Latse, is 500 kilometres from the source of the river. As the river flows further down into the broad valley, you come across the fortress of Shigatse. Further south is the town of Gyantse, a very strategic trade centre on the caravan route of north-south. The only mode of transportation in these treacherous mountains is the narrow paths and tracks or the waterway. There is an imposing fortress in Gyantse where in 1904, the British forces heading for Lhasa, had to face stiff opposition.

Gyantse also boasts of the most beautiful Stupa Chorten or Kumbum, which stands out like a jewel. The Kumbum containing 100,000 pictures is a breath taking example of Tibetan art. It was built between 1414 and 1425 and is still in a very good condition. Pilgrims walk around the Stupa in a clock-wise direction.

Lhasa, the official seat of the Dalai Lama stands on the tributary of Kyi-chu and is 80 kilometres north-east of Gyantse. From very far off you can see the two hills-one which has the Potala, which is the palace of the Dalai Lama and the other is the Iron Mountain, a very famous medicine centre of the Tibetans, which was totally destroyed by the Chinese invasion. The Potala was founded by the 5th Dalai Lama. The holiest spot in Tibet is the Jorkhang, "The house of the Master," the Buddha. It is situated right in the centre of the town of Lhasa. Built in the 7th Century and enlarged in the 17th century, the Jorkhang has the most beautiful and sacred statue of the Buddha, the "Jobo Shakyamuni." It is the most important pilgrim centre and countless pilgrims come here from far away places.

In the 7th century, when Tibet was ruled by King Songtsengampo, it was his two wives who encouraged Buddhism. One of his wives was

a Princess from Nepal and she believed in the Buddhist faith. The other wife was the Chinese Princess Wengcheng, who was the daughter of the Emperor of China and who was also a devout Buddhist. According to Chinese tradition, the sacred statue of Buddha was sent as a wedding gift for the Tibetan King. It was brought to Lhasa in the year 641. There were 3 large monasteries in Lhasa-the Drepung, the Sera and the Gonden and since the 17th century, there have been around 20,000 Lamas living in these monasteries. But after the invasion of the Chinese in 1959 A.D., these monasteries have been destroyed.

Eighty kilometres (48 miles) north of Lhasa, is the Nyenchentanglha mountain range. It borders the world's largest high altitude inland lake, the Nam Tso. It is at a height of 4,720 metres (15,576 feet) and is twice the size of Lake Constance in North America.

As the Tsang-Po flows further eastward, it becomes broader and now the Yarlung valley is only 3,000 metres (9,900 feet) above sea level. And facing the Yarlung valley is the Yumbu Lakhang, or the "Fortress of Life." This is the oldest and still used fortress in the world, being 2000 years old. Built by the founder of the Yarlung dynasty, Nyathitsenpo, it was completely destroyed during the Cultural Revolution between the years 1966 and 1976. But it was once again rebuilt according to the old plans and completed in 1985.

The Yarlung Tsang-po moves on eastward and gives way to broad floor plans and vast sand dunes intercepted by short gorges. The natural vegetation also begins to thicken. The damp forests of the Eastern Himalayas consist of the birch and fir tree and a thick undergrowth of rhododendron and mountain bamboo.

In the dense forests along the Dibang river in the foothills of Assam live the primitive tribe of the Abors. They are hostile and attack intruders with poison arrows, spears and long swords. In the Assam-Burma (Myanmar) border area, south-east of the Abors territory, are found the Mishmi tribe. The mountain tribe of the Mompas are spread out west of the Yarlung Tsang-Po bend right up to the border of Bhutan. Believed to be the largest ethnic minority of the Eastern Himalayas, the Mompas build their houses with stones and have horizontal beams in the middle. To the

east and south-east of the Yarlung bend are found the Lopa and the Denpa tribes. These tribes live in wooden houses and they smoke exceptionally long pipes. Except for the Abors, all the other tribes are friendly towards outsiders, except of course, when they feel threatened and are pushed out of their homeland.

Further westward, the Tsang-Po is joined by the Subansiri river. On the upper reaches of this tributary lies, at the height of 6,000 metres (19,800 feet), the Tsa-ti, the most sacred mountain of Eastern Tibet. Embedded between the glaciers of the north and the jungles of the south and forming a buffer between the eastern and central Himalayas is the tiny state of Sikkim. Between the Yarlung Tsang-Po in the north and the Brahmaputra in the south, at the western end of the East Himalayas, lies the Kingdom of Bhutan. The Kangar Punsum, at a height of 7,550 metres (24,915 feet), is the highest mountain of Bhutan. Its name means the "Glacier of the Three Spiritual Brothers", establishing the peaceful co-existence of the three races.

In the region of Ladakh, Bhutan and the Lahaul and Spiti valleys, which border Bhutan, Buddhism has taken a new form. Here Lamaism is the main religion. It was founded in the 8th century A.D. by an Indian monk named Padmasambhava who resided in Tibet. The Lamaism belief prophesises that as time passed, society degenerated and the teachings of the Buddha, of humility, non-violence and forbearance had no effect on the human beings and those who were doing good work and were pious, were considered weak. Buddha's teachings of counteracting violence with non-violent actions proved ineffective. Eventually, a new doctrine was perpetuated which said that violence had to be fought by an even more super and benign means of violence. It resulted in the Shamanistic cult mingling with Buddhism and a large number of powerful half-Buddhist, half-Shamanistic deities began to be worshipped. These deities are supposed to fight the evil spirits.

Forty kilometers from Leh, the capital of Ladakh, is the Hemis Gompa, a very famous monastery and pilgrim centre. Every year, in the month of June, a festival is held here, to celebrate the birth anniversary of Padmasambhava. The festivities last for 3 days. The main attraction

is the dances, where dancers represent both the cities and the evil spirits. The deities are supposed to terrorize the evil spirits and their masks are also grotesque and frightful looking.

The Brahmaputra comes to its journey's end but will continue to flow down from the Himalayas for as long as nature takes its course.

Indus-The Mountain Lioness

The Indus or the ancient name given to it, the 'Sindhu', is the second largest Himalayan river and one of the mightiest rivers of the Indian sub-continent. This river is the deepest of all rivers in India and it has a very dominating presence. In the dry, geographical region of the Karakorums, she was the main source of life and resembled an 'untamed mountain lioness on the prowl!' From its source to the sea, it is 2,880 kilometres long and geographically it is a river flowing through north-west India and Pakistan. Like the Yarlung Tsang-Po, the river Indus has its beginnings in a number of arms before you can pin-point its actual source. It rises in the Tibet region, from the glaciers of the northern slopes of Kailas parbat, 5,180 meters (17,000 feet) above sea level. The actual source river is the Lungdep Chu, which rises in the south near Kailas. Another tributary, Bokhar Chu joins it from the north-east. Above these is the *Senge Khambha*, or the 'Lion's Mouth', which is the official source of the Indus. In its upper course, the Indus flows north-westward in the valley between the Kailas range (north-east) and the Ladakh range (south-west) for a length of nearly 322 kms. (200 miles). The region is barren with a few desert like hills and though uninhabited, you may come across nomads living in black tents.

As the Indus flows downstream it makes a gradual westward turn, past the old monastery of Tashigang, through a wide valley that runs along the famous Indus Yarlung suture zone, with the Ladakh range to its north-east and the Zaskar range in the south-west. The granite rocks of the Transhimalayas are visible to the north. The river flows through this region for 483 kms. (300 miles) and passes the fiord-like Lake Pengong Tso.

This lake is in the border of the Transhimala and Karakorum ranges. It is 150 kilometers (90 miles) long. About 20 kms. (12 miles) west of Leh, the capital of Ladakh, the Indus is joined by the Zaskar river from the south-west. The word Zaskar is derived from the coppery ore found in the rocks of that region. This junction of the two rivers, reflects the typical beauty of Ladakh, with the grey Indus merging with the coppery Zaskar in a symmetrical union. For several hundred yards you can distinctly see the imaginary middle line dividing the grey and the soft blue. At the base of the peak of Stok Kangri, you may come across flocks of the wild blue mountain sheep called the bharal.

The wide Indus valley has the barren granite mountains to the north and the orderly Zaskar chain to the south. The southern end of the Zaskar glacier passes are at a height of over 5,000 metres (16,500 feet). Leh is the main town in these region and at one time it was the chief town on the great trade route to central Asia via the Karakorum pass. The impressive kings palace dominates the entire region. It was built in the early 17th century by King Sengge Namgyal, one of the greatest rulers

The second largest Himalayan river Indus has its beginning in a number of arms before one can pin-point its actual source. On its way the Indus is joined by the Zaskar river near west of Leh, the capital of Ladakh.



of Ladakh. In the town, trade was carried out and the people belonged to different races from all over Asia. But the Chinese invasion of Tibet brought an end to this trade and now military encampments cover most of the area. You will also find the highest airport in the region, at a little distance from Leh.

Crossing the river by a wooden bridge you can reach the ancient Gompa of Alchi, which was once an exquisite architectural piece of Tibetan beauty but is now in ruins.

Once the Indus leaves the Leh valley, with its dry climate, it enters the high altitude forest region with birch and fir trees and further on the mountain jungle with light or heavy forestation, depending on the season. The houses in this region are made of wood and covered with shingles. The small temples with local deities have exquisite wood carvings on its doors.

The Indus has now reached the Shyok valley. Near the town of Kiris, the river Shyok flows down from the Karakorum pass, flowing south-wards at first and then swinging sharply north-west aside the small town of Shyok. For the next 100 kilometers (60 miles) the Indus flows through the Gartok valley region through black hills, which were formed due to the suture. It then breaks through the granite chain of Ladakh to reach the Indian soil.

The whole length of the 48 kms. (300 miles) long Indus valley cutting across the ancient kingdom of Ladakh and flowing in a northwesterly direction is similar to the Yarlung Tsang-Po, alternating between wide plains and short gorges. Like the Tsang-Po, the Indus also has ancient historical sites along its course, reflecting an old civilization.

Once the Indus crosses the Indian border, it flows through the Pangong Tso and the Tso Moriri, two of the most beautiful lakes in the world. The Indus leaves the wide Ladakh valley at the small trading town of Kargil, which is a place of Islamic culture totally cut off from the Buddhist culture of the northern region. You will find the colourful domes of the mosques and minarets shining in the sun not only in Kargil, but in the villages around it. The broad Kargil basin is now used as a military trading centre. Flanked by river terraces, the Kargil basin is separated

from the Mulbek valley which lies to the east along the 12 kilometres (7 miles) long Wakha gorge. In this region you will again find Buddhism prevailing and the mountainous town of Mulbeck surrounded by tall limestone cliffs, has chortens and small temples lining the trails and paths.

The Indus flows along further on through deep deserted granite gorges, an uninhabited area and today, even a military bound area, where civilians are not allowed to encroach. The Indus emerges from the gorge only when it reaches Skardu, which was an important transit point between Kashmir and the Karakorum. Near Skardu, which is the chief town of Baltistan, the Indus is joined from the north-west by the broad river Shigar. The Skardu basin is a region of wide desert valley with very high river terraces and sand dunes. At this point, the Indus after leaving Ladakh and the grainte gorge, has become a vast river. Flowing almost 160 kms. (100 miles) north-west in the shadow of the vast Himalayan range, the Shyok river joins the Indus about 30 kms. (18 miles) south-east of Skardu. Both the rivers are of the same size at the confluence, though the Indus has already flowed twice the length of the river Shyok. This is because the tributaries of the Shyok arise from very active glaciated regions of the Himalayas. The Indus flows further on from the Skardu basin past the Haramosh peak in a 3,040 meters (10,000 feet) gorge from where it suddenly turns south-west.

The Hunza river now joins the Indus and its wide valley leads to the Baltistan town of Gilgit, which was a former transit town on the north-south route along middle Indus. At the foot of the Karakorum is the old castle of the Emir of Hunza. Little is known today of the Hunza tribe, but they had migrated from the north, had their own language and were spread over a vast region.

Further south, the Indus flows along the north-west flank of the Nanga Parbat 8,125 meters (26,660 feet) through the wild Chilas gorge. In this region you will find exquisite rock carvings, revealing a history of over 3,000 years of the caravan traffic along this north-south route. The river has now dropped to 1,000 metres (3,300 feet) above sea level and the area is covered with hot springs. The peak of Nanga Parbat is only 21 kms. (12.6 miles) away from the river.

Westward from the Chilas gorge, the Indus flows along, gradually changing its course in a southerly direction, through the Kohistan highlands of the north-west frontier region of Pakistan. As the direction of the river changes, so does the climate. As compared to the dry highlands, the southern winds make the region wetter and birch and fir forests flank the river sides and further south, even the oak forests abound.

The Indus flows past Patan, an earthquake zone, and falls through more gorges. On the steep left flank of the valley, you can see traces of pathways linking the mountain villages. On the right bank is the new Karakorum road which turns off over a vast suspension bridge built by the Chinese. It then flows through vast unknown territory which has primitive tribes living among the highlands, often described as wild and ruthless, the river now leaves these highlands and reaches the plains after passing through some low lying hills. And it is here that the Indus is blocked by the Darbela dam, the largest in Asia which stores water in a large lake behind it. The dam is not completely water tight and water springs out from its lower walls. This is due to geological faults in the region right across the dam. The silt and mud carried by the river from the mountains collects behind the dam and this reduces the volume of the basin. The western tributaries of the Kunar, the Swat and the Kabul join the Indus further south. Its last lap in the mountains is through the famous salt hills which emerged 600 million years ago and are at the southern most tip of the west Himalayas.

The great Indus flows through the plains of Punjab and Sind, past the ruins of the old civilization of Mohenjedaró, where it is joined by the river Nari. It then flows into the Arabian Sea to the east of Karachi. The submarine delta of the Indus is nearly as large as those of the Ganga and Brahmaputra. The *Panch Ab* or the 'five rivers' is how the state of Punjab derived its name, since it is a state which has five rivers flowing through it, all of which are the tributaries of the Indus. They are the Jhelum, the Chenab, the Ravi, the Beas and the Sutlej. Lord Rama is supposed to have sacrificed his life in the river Sutlej.

The western most tributary of the Jhelum rises in the Wular Lake region. The Chenab flows from the Lahaul and Spiti region and the Jammu

and Kashmir valley. The five rivers enter Pakistan and form the Panch-nad. A significant and prominent pilgrim place is the holy mountain of Monimahesh, and to reach it, the pilgrims have to trek along the river Ravi, past the beautiful hill-station of Dalhousie in the Chamba valley. An important festival celebrated in the month in the Chamba valley of Himachal Pradesh in the month of Bhadra is the Minger Mela. On this day people dress up in their best attire and gather at a cliff overlooking the river Ravi. They throw a 'minger' a silk piece of cloth tied with a silver tassel, into the river and propitiate the river-goddes to bless them and avert any calamities in their homes.

The total length of the river Ravi is 710 kilometres and it flows into the river Chenab. Most of its journey is in the plains and it forms a part of the international boundary between India and Pakistan. Though the river is snowfed and perennial, it decreases in volume since it flows through regions with very little rainfall. The severe high temperature also evaporates its waters. However its journey through the flat plains enables good irrigation systems. The Ravi is also called the Iravati in Sanskrit and in the epic and *Puranic Literature* it is one of the *Sapta Sindhu*, the seven rivers of the Indus system, where *Vedic* culture thrived. The regions where the *Panch-nad* flow are very picturesque with terraced fields and fruit orchards. This is due to the fertile quality of the land along the river beds which carries fresh soil from the mountains as well as rotten vegetation, which acts as a natural manure.

There is evidence of Hindu and Buddhist religious places along the banks of the Indus in ancient times, as well as traces of Persian and Greek influence. In the lower Indus valley at Lothal, there is evidence of river goddess worship, 4,500 years ago. Throughout history, the Ganga was considered to be the central point of India's geography and the mighty and turbulent Indus got the position of being a boundary maker. But the Indus is the river of life for Pakistan and a majority of its irrigation depends on it. Also called the 'lion-mouthed river of the snow' or even 'snow-lioness' the grand Indus has a dominant presence and is the source and life in the Karakorums.

Sutlej-The Fast Runner

The Sutlej, another river flowing down from the Himalayas, rises from Tibet and is considered to be the fastest river of the land. Swami Pranavananda, an author of a very detailed and interesting book on the holy lake district of Kailas, has to his credit, of being the first person to find the true source of the Sutlej. It is very interesting to note that the Sutlej could be a river one year and the next year, a dry bed. This is one river which cuts across through the range diagonally and its source is the Raksas Tal, south of the Manasarvovar. Flowing from an elevation of 4,633 meters (15,200 feet), the length of the river is only 1,448 kilometers(900 miles) when it joins the Indus river in Pakistan. The Sutlej is the longest of the five rivers of Punjab. Flowing towards the west through Himachal Pradesh, it then turns south-west to receive the Beas, thus forming the border between India and Pakistan. In Pakistan, the river Chenab joins the Sutlej which has already received the tributaries of the Jhelum and Ravi rivers. Here the stream which collects the waters of all the five rivers of Punjab is also called the Panch-nad (5 rivers). Flowing southwards, the Sutlej finally joins with the Indus in the desert of Sind. The old name for the Sutlej was 'Satadru' which is derived from Sanskrit for 'fast runner'.

Going back to its source, the Sutlej emerges from the Lake of Demons, and its source can only be seen when the water level is high. It seeps into the soil through gravel and rocks for some distance. Its first major tributary rises to the south at the Darma La Pass of the Himalayas. Since its volume and velocity is so intense, it is considered to be the main source of the river. The Shib Chu is the other tributary joining up

with the Sutilej from the south. This is the beginning of the alluvial basin of the Sutilej, with spectacular horizontal terrace and deep gorges. This is the region where a hundred years ago famous mammal bones were found. Along the river Shib-Chu you will come across cave monasteries dating back to the time when the kingdom of Guge prospered. The whole region is covered with cliff fortresses and many sites show evidence of the Guge culture.

The Chinese invasion of Tibet cut off this region from the rest of the world. The last researchers to visit these sites were the renowned Lama Anagarika Govinda and his wife Li Gotami, both of German origin. In his book, *The Route of the White Clouds*, he has given a fascinating description of the landscape of this region-"For us it was almost paradise; a magical world of extraordinary cliff shapes, that had crystallized to form huge towers rising hundreds of metres into the deep blue sky, like a magic shielding wall round a green oasis that was watered by springs and quick flowing mountain streams. The ridge on top of the cliffs was studded with temples, chortens, monastic buildings and the ruins of old castles and fortresses and from up there one had a splendid view of the valley, with its phlanx of tower like cliffs standing in rows one behind the other like organ pipes, all pierced by the hundreds of cave dwellings with their window openings. The greatest surprise however, was the main temple, which was not only undamaged but was crowned by a golden roof that shone among the cliffs and the ruins like a lost jewel... The remains of the old frescoes led us to the conclusion that this temple had been built towards the end of the 10th century A.D.-over a thousand years ago!" The Lama also made many copies of these works of art.

In the alluvial basin of the Sutilej lie the ruins of the towns of Tholing and Tsaparang. In the year 1076, Tholing was the venue for a great religious conference held under King Tselda, in which all the religious dignitaries of Tibet participated. Buddhism had triumphed in Tibet.

In 1625, a Portugese missionary, Antonio de Andrade reached the town of Tsaparang where the tolerant king permitted the priest to set up his mission. However, the king was unaware of the fact that this missionary had not come to exchange religious ideas but to wipe out Buddhism and

preach his own teachings. The Buddhist priest began to mistrust the missionary and in spite of severe protests, the king continued to give him support. This led to an overthrow of the king and an end to the powerful Tsaparang dynasty. And by 1650, the kingdom of Guge was no longer on the map of Tibet and came under the rule of Lhasa.

The river Sutlej now leaves the old kingdom of Guge and gushing through impassable gorges, it breaks through the Himalayan range, east of the Leo Pargial 6,980 metres (23,034 feet). You can reach these gorges via the Shipki Pass, leading into the high valley of Poo. A large number of Tibetan tribes are found here. These tribes barely have any contact with the Indian people, who live just a day's journey away towards the south. The Sutlej is now surrounded by woods in which live the Bhotia tribes, and further down, the Indian tribes. Due to the availability of oak and pinewood, these tribes build simple wooden huts and also decoratively carved wooden houses with either shingle roofs or stone slabs. Their temples are unique tower like buildings in which are enshrined their own local deities. The carved wooden pargolas and long wooden beams running across the white walls are an architectural piece of art. Overlooking Shimla, the old summer capital of the British Raj, the Sutlej cuts through a steep gorge and leaves the Himalayas to flow along in a wide basin, depositing all the eroded material on its banks. It crosses through the irrigated plains of the Punjab and flows into Pakistan where it joins the river Indus in Sind.

The longest of the five rivers of Punjab and with the most sacred source, the Sutlej has seen many ancient civilizations on her banks. The ruins of Harappa lie between the rivers Sutlej and the Ravi. The Sikh religion also regard the Sutlej as a holy river and past Kiratpur, at a serene and peaceful spot along the river, they perform the last rites of their religion. The Shrine of Kiratpur Sahib was founded by the 6th Sikh Guru, Sri Hargobind Sahib. The 7th and 8th Gurus were also born and brought up here. The sacred head of the 9th Guru Sri Teg Bahadur was received here by the 10th Guru and from here, taken in a procession to Anantpur Sahib for cremation. The river Sutlej has completed its rapid journey and it merges with the Indus to finally reach the Arabian Sea. The Bhakhra



A dam on the river serves as a reservoir and also generates power for both domestic and industrial use. During the monsoon, it holds back the excessive water from the river basin to prevent flooding in the plains and during summer it is let off to irrigate the fields. Salal Project - Concrete Dam on River Chenab (*Photo NHPC*)

Nangal dam on the river Sutlej is one of the highest in the world (226 meters) almost three times as high as the Qutub Minar. It consists of five hydro-units of equal capacity. It does not serve just as a reservoir to collect water but also generates power and electricity for both domestic and industrial use. During the monsoons, the dams hold back the excessive water from the river basins to prevent flooding in the plains and during summer it is let off to irrigate the fields.

The Jhelum is the most westerly of the *Panch-ab* (5 rivers) and is mainly a river of Kashmir and Pakistan. Rising in Kashmir, the Jhelum is 770 kms. long and emerges from the gushing springs of Berinag. It flows north-west between the vale of the main Himalayas and the Pir Panjal. It passes the city of Srinagar and through the Walur Lake. Nine bridges

crown the river in Srinagar and the entire region is a tourists paradise. Srinagar, the capital of Jammu and Kashmir has a very chequered history. The early Hindu Kings reigned gloriously over this magnetic and beautiful region. A centre of great Buddhist activity during the reign of Ashoka, it was later marauded by the Moghuls. During the reign of Aurangzeb, the Hindu Brahmins who formed a majority of the population, were forced to convert to Islam. Guru Teg Bahadur, the 9th Sikh guru, defended the cause of the Kashmir! Hindus were tortured for several days and later beheaded by Aurangzeb's men. The Brahmins who had got converted to Islam requested their Hindu king to take them back into the Hindu-fold. But the orthodox high priests of Benaras refused to concede. Later, the British left the shores of India and returned the constituencies to the native rulers. By October 1947, Pakistan had attacked Kashmir and the king acceded to the Union of India. Kashmir has always remained a part of India from ancient times. The Shankaracharya who walked the length and breadth of India propagating his monastic theory of reality, built a temple a thousand feet high in Srinagar. Small steps lead up to the small temple of Shiva on top. At one time a beautiful path of polished stone led the pilgrims right from the Jhelum river up to the top, but it was destroyed by the Muslims.

From Srinagar you journey to Pehalgam in the Liddar valley. From there a 46 kilometers arduous trek will reach you to the Amarnath caves, a very sanctimonious place of worship for the Hindus. The most auspicious time to visit the caves is in the month of August/September, on Sharvana Poornima day. In the Amarnath cave is enshrined a natural ice lingam which waxes and wanes with the moon. Along the trek you will cross Chandanwadi (16 kms.) Sheshnag, with a beautiful lake nearby and 'Panchtarini', where the five rivers meet. They are excellent camping sites on your way upto Amarnath. The three lingams represent the Lord's family-Shiva, Parvati and Ganesha. Nearby in the crystal clear ice waters of the Amaravati, pilgrims who dare brave the cold, take a holy dip. Anantnag is famous for its natural springs and it is on the way to Pehalgam. The largest of these springs is said to be the abode of Ananta, the serpent god on whom the Maha Vishnu reclined. It then flows south-west through the Baramula

Pass in the Pir Panjal and then north-west to reach Muzzaffarabad. About 176 kms.(110 miles)southward it passes the city of Jhelum in Pakistan, thus forming a natural frontier between Kashmir and Pakistan. The city of Jhelum has prominent significance, in being an important river crossing on the northern highway during the invasions in the past. Besides it being a main railway junction, the Grand Trunk Road from Calcutta to Peshawar also passes the city of Jhelum. Onward on its course, the river Jhelum now traverses through the Salt range between Rasul and Find Dadan Khan and finally reaches the plains of Punjab. Its total course of 724 kms. (450 miles) ends at Trimmu, where it joins the Chenab. From the foothills of Kashmir, the Jhelum not only forms a geographical boundary, but also serves as a good irrigation network.

With this, we have covered all the big and small rivers of the north as well as their tributaries and these comprise of the major rivers of the Himalayas which flow down to the plains in an easterly or westerly direction to merge into the Arabian sea or the bay of Bengal. These rivers have contributed greatly to the land and its people and through centuries, seen many civilizations along their banks. On them depend the life and sustenance of millions of people and from them, have they derived courage and faith and formed beliefs and religions which they celebrate along its banks. The rivers truly, are the mainstream of a country!

And the Mahanadi Meanders

The Mahanadi is one of the four great rivers of the north, the other three being the Ganga, the Brahmaputra and the Indus. It is mostly a river of Orissa and it is also one of the largest rivers of the country with a catchment area of about 1,20,500 square kilometers. Orissa abounds in rich minerals resources and vast timber forests. The various river systems that flow through all the districts, makes it a riverine state. The rich alluvial deposits brought down by the rivers from the higher regions, creates wide valleys and often heavy rainfall causes high floods, especially in the eastern districts and the coastline.

The Mahanadi is the only one of the four great rivers which does not originate in the Himalayas, but rises from the wild mountainous region of Bastar and about 40 kilometres south-east of Raipur in Madhya Pradesh. Fed by the mountain springs that never run dry, it is one of the largest perennial rivers of India. At first, it trickles down as a small stream flowing easterly past Chhattisgarh. As it reaches the town of Seonarayan, it receives its first big tributary, the Seonath. Flowing through rock and wild terrain inhabited by wild animals and numerous tribes, the Mahanadi reaches Padampur and from there, suddenly turning south, it enters the State of Orissa near Sambalpur. It is here that the great Hirakund Dam has been built on the Mahanadi. With a width of 26 kms., it is one of the longest dams in the world, and was completed in 1960. It not only generates power and controls floods but serves as a source of navigation as well as irrigation. As the river gushes down its course, it is often barred by rocks and it weaves its way around them and if the rocks are soft, it sweeps through them, causing extensive erosion.

Beyond Sambalpur, the Mahanadi flows onward, and through the hills past Sonepur, it finally descends through a deep gorge known as the Batakosia gorge 22 kms.(14 miles) gorge, to a region of dense forests. Flowing past the district of Puri, it enters Cuttack district at Naraj, which is 11 kms. west of Cuttack town, through the deep Naraj gorge. During floods the Naraj gorge discharges upto 1,17,000 cubic meters of water per second! Here the river bifurcates into two rivers-the Mahanadi and the Kathjuri and they encircle Cuttack from the north, south and west. After flowing along eastward through wild bamboo forests, and gathering many tributaries on its course, it falls into the Bay of Bengal at False Point. Considered to be a strategic point at the mouth of a great river and ideally situated to make a trading port for large vessels and steamers to dock, in the early 1700, it was developed as a harbour and it enhanced the export of rice and other mineral ores. However, a tremendous storm in 1815 destroyed the harbour completely, causing heavy loss of life and property. Today, the new port at the mouth of the Mahanadi is Port Paradeep and it is a prominent port on the eastern coast of India. Orissa has a coastline of almost 400 kms.

The Brahmani and the Vaitarini are the other two important rivers of Orissa. The Bhahmani has a catchment basin of 3,560 square kms. and is 416 kms. long. It is made up of the combined streams of the south Koel and Sankha rivers rising from the Sundargarh district. The most important tributary of the Mahanadi is the Tel. Flowing past Bonai and Talcher, famous for its coal mines, it crosses Cuttack district at Jenapur and enters the Bay of Bengal at the Dhamru estuary. The Brahmani is always the major threat to the people of Cuttack district, especially during monsoons when it causes havoc after flooding the area.

The Vaitarini rises from the Gonasika hills and enters Cuttack district near Balipur. As it nears Dhamru it joins with the Brahmani river and together they merge into the Bay of Bengal. The Vaitarini is considered a holy river and it is connected with the Ramayana with reference to the exile of Rama. The Subarnarekha is a small river with a total length of 312 kms. originating near Ranchi in Bihar. In its course it runs only 48 kms.in Orissa. It carries particles of gold in its silt. The Rushikulya and

the Budhabalanga are the other two rivers which weave across the state of Orissa. The tributaries of the Godavari river such as the Kolab and the Sileru drain the Gangam and Koraput districts of Orissa. Thus, Orissa with its wet forest regions, its fertile river basins and its mineral resources is a state that is self-sufficient and progressive. The basins of the Mahanadi and Tel and the Bhrahmani and Vaitarini basins, together form one of the most fertile areas of India.

Besides these perennial rivers, we also have the torrential rivers, such as the Ajay and Damodar. During the dry months these rivers are wide sand beds with a small pool of water at some places. But during the monsoon months they are in spate and cause sudden floods, which leads to heavy loss of cattle and crop. The Ajay is a river of West Bengal and its source lies in the high lands of Chhota Nagpur. Surrounded by green rice fields on either side, the Ajay flows past the plains of Birbhum, which is also known as the rice-bowl of Bengal. The Damodar on the other hand rises from the Khamarpet hills of Bihar through the rocky areas of the plateau of Chhota Nagpur. It comprises of many small streams which join up to form one main stream. It finally joins up with the river Rupnarain and together they merge into the river Hooghly, about 110 kms. from the Bay of Bengal. The total length of the Damodar from its source to its junction with the Rupnarain, is 538 kms. This torrential river could only be brought under control due to the efficient and organized efforts of the Damodar Valley Corporation. With the damming of the Damodar not only is the threat of floods reduced, but it also generates electricity and improves the quality and quantity of crops through the irrigation canals.

Narmada-The Jata Shankari

"Throughout the ages geography has made us one great land, the common culture has made us one land and our common aspirations, our common hopes and fears, victories and defeats, have made us one. That is the past. In the present, by our common labours, common sacrifices and common struggles, we gained the freedom of India... The past and present have provided a common ground to us. So also must the future be common to us, the future we are striving to attain, the future of millions of our people, their welfare. In whatever region we may live, this calls for unity of purpose, unity of endeavour and sacrifice."

- Jawaharlal Nehru

The Spirit and thought that go into these prolific words seems to flow in its true essence, in the rivers of India-whatever terrain they cross, they unite the great country that is India, acting as an anchor for the vast million whose existence depend on them.

The Narmada is one such river. It is a great river of Central India which has been sacred to the Hindus through the ages. Unlike most other rivers of India which flow eastwards into the Bay of Bengal, the Narmada and the river Tapti are two waterways which, typical of rift valleys, run parallel to each other and flow into the Gulf of Cambay or Khambhat, near Bharuch, in the Arabian Sea. It flows from east to west. Navigable only in the lower course, upto 80 miles (130 kms.), the Narmada has an estuary that is 13 miles (21 kms.) wide. The region it flows through is, geologically amongst the oldest formations in the world.

Both the Narmada and the Tapti share the same geomorphology with old Mesozoic rock at their sources and the lower valleys, leading to the young Quaternary alluvium in the middle course and the coastal region. The entire tract of the Narmada is pre-Cambrian and Palaeozoic which geologically is millions of years older than the Himalayas, which are Mesozoic at their oldest and Pliocene and Pleistocene at their youngest. The Narmada in fact is older than the Ganga and is also supposed to have descended from heaven by falling on the jata (top knot) of Shiva and that is why she is also called 'Jata Shankari'. She is as sacred as the Ganga is if not more. Bathing in the waters of the Narmada is believed to purify all sins and the priests consider its sanctity to be even greater than that of the Ganga. The orthodox Hindu mythology claims that the Narmada river has given status to Brahma, Vishnu and Shiva. According to Vishnu Puranas one gets rid of one's sins by bathing thrice in the river Saraswati, for seven days in the Yamuna, for one day in the Ganga, but it is the mere sight of the Narmada that absolves one of all sins. The Ganga is holy in Kankhal, the Saraswati is holy at Kurukshetra, but whether it flows through villages or forests, the Narmada is sacred everywhere.

The Narmada rises in the Vindhya mountains in the Shahdol district of Madhya Pradesh. Its source is from the Amarkantak hills of the Maikala range of the central highlands. Within an area of two square kms. of Amarkantak, three great rivers arise-the Narmada flowing westward into the Arabian Sea, the Son flowing north-east into the Ganga and the Mahanadi flowing south and then east into the Bay of Bengal. Of its total length of 1,312 kms. the Narmada flows 1,070 kms. in Madhya Pradesh, 35 kms along the boundary of Madhya Pradesh and Maharashtra, 39 kms. along the boundary of Maharashtra and Gujarat and 166 kms. through Gujarat. 87% of its catchment area is in Madhya Pradesh and most of its tributaries join the Narmada in this state.

Flowing through thick jungles and narrow gorges, the Narmada sharply turns into deep valleys and has beautiful scenic waterfalls along its course. It is the southern frontier of the kingdom of Harshavardhana and the northern frontier of the Chalukya dynasty of ancient India. From its source to its mouth, it journeys 1,312 kms., fast-flowing untamed and

wild, cutting through high marble rocks, red sandstone hills and vast coal deposits. Since it is not dammed, it has caused heavy loss of life and property during floods.

The name Narmada means 'making one happy.' It's dazzling blue waters with craggy granite beds makes the river look gentle and beckoning. However, it is deceiving to the eye. In the upper regions, due to the rapid flow of the water, erosion takes place and the pebbles in the river almost take the shape of lingas, thus making the river very holy. The followers of the Shiva cult believe that Lord Shiva resides in every white quartz pebble found in the Narmada. Infact, Shive himself is represented by a white pebble in the Panchayatana Puja, where the five symbols of Shiva, i.e., the Naga, Linga, Nandi, Trishul and Dakshinamurti (Shakti facing south) are worshipped.

According to a legend of the Vishnu Purana, in the Patala region (region below the earth) lived a race called the Gandharvas or the

Rivers have a personality of their own. Settlements build up on their banks and civilizations flourishes. River Shipra with temples and buildings on its bank.



Mauneyas (they were the sons of Muni Kashyap). These Gandharvas had defeated the tribes of the Nagas or serpent gods and seized their kingdom. The serpent chiefs prayed to Lord Vishnu to deliver them from their enemies. Lord Vishnu said that he would enter the body of Purukutsa, son of Mandhata, to help get rid of the Gandharvas. The Nagas sent the Narmada to assist Purukutsa. On reaching Purukutsa she then took him to the region below the earth where he defeated and destroyed the Gandharvas. In appreciation of her assistance, the Nagas conferred upon her a blessing that whoever invoked her would never be harmed by a snake-bite. Vishnu also fulfilled his promise to the Nagas and assumed the form of Purukutsa, whose wife Nagi is considered to be a personification of the Narmada. They had a son who was named Trasadasyu. The Narmada is also represented as being the daughter of Rishi Mekhala and is also called Mekhala Kanya, she is a mind born daughter of the Somapas, a class of Pitris, she is a sister of the Nagas or serpents; she is the daughter of Soma, the moon; and she is also known as Indu-ja and Somadbhava.

Due to its divine origins, many devout Hindus wish to die on the banks of the Narmada. If not they would like their ashes to be immersed in the river. The Hindus believe that even the river Ganga comes once a year to the Narmada taking the form of a black cow and bathing in its waters. This is the auspicious day which is celebrated as Narmada Mata Jayanti, the birth of the river Narmada on Magha Shukla Saptami, i.e. the seventh day of the bright half of the lunar moon, two days after the spring, harvest festival of the north, Vasant Panchami. On this day, bathing in the waters of the Narmada is considered more auspicious than bathing in the Narmada and Ganga together. The festival is celebrated all along the river. The most important pilgrimage centres along the course of the Narmada are Amarkantak, Omkar, Mandhata in Madhya Pradesh and at Chandod in Gujarat. At Hoshangabad in Madhya Pradesh, individuals light a lamp and set it afloat on the river on a *dona*, which is a shallow vessel made of leaves and decorated with flowers. This is done to attain blessings for the departed souls of the family. Now the festival has gained great eminence and after sunset, 21,000 diyas (lamps) are set afloat on the river and the turnover of pilgrims goes beyond 1,00,000 people! The festivities take the shape of a village fair and there is a lot of merrymaking and revelry.

Another sacred ritual performed by the devout Hindus is a pradakshina of the river Narmada or the ninety-six stage circumbulation from Bhrigukhagmam (vedic name for Bharuch) to its source at Amarkantak and back downstream on the opposite bank of the river. There are pilgrim centres all along the course of the river-Paragat, Omkara, Parvani, Karnali, Shukia Teertham and Bharuch. Half-way down the river in the gorge section at Mandhata, where the Narmada cuts into the Vindhya scrap is the island town of Omkeshwar, said to resemble the sacred 'Aum'. Here is the famous Omkarnath temple, where lies one of the twelve Jyoti lingas. The site was destroyed by Mahmud of Ghazni during his march to Somnath in the year 1024. However, some of the splendid construction still remains. Though the whole island represents the abode of Shiva, there are a number of Vaishnavite and Jain temples on the river banks. It was here that the ancient ritual of committing suicide was practiced. It was eventually put to an end by the British. It was also at Omkareshwar, that the young Shankaracharya came from Kerala to receive initiation from his Guru. Like Hardwar, Omkareshwar is one of the most revered of *teerthas* of the Hindus.

The Narmada also flows along the town of Mandu, famous in history for the romantic love story of Baz Bahadur and Rani Roopmati.

Then along the river there is the town of Maheshwar, which was once an ancient Kingdom with many temples and palaces. Near the Shukla Teertham is a small island, where the poet-saint Kabirdas lived as a hermit under a banyan tree. Narmada in her *yogini* (ascetic) form is shown standing on a crocodile. She is the dark daughter of Shiva and Parvati born from the nectar of her fathers throat. She is therefore also depicted as a beautiful ascetic in tiger skin and holding a trident. At the temple of Amarkantak, Narmada is represented by two idols of goddesses, one black and one white, both facing each other. Near Bharaghat, where the river is smoothly flowing, on the hill-top, is the temple of Chausath Yogini, and it has beautiful carvings.

The Narmada rises at 11.00 meters and drops in a series of falls to a bed level of 15.8 metres at Navagaon in Gujarat. It has well-defined banks and flows through some very picturesque terrain of natural beauty,

with gorges and majestic falls like the Dhardi. It is a virgin river flowing pure and unsullied from its source to sea.

For a major part of its journey through Madhya Pradesh the Narmada passes through cliffs and rocks, rapids and waterfalls, hills and whirlpools and through thick tropical and dry deciduous forests of sal in the upper regions and teak and bamboo in the middle and lower regions. All along its bank the Satpura range runs alongside the river to the point where they meet the Vindhyas at the source of the river. The Narmada plunges down 25 meters over a cliff at Kapildhara. Traversing through wild country between the Mandia mountains, it takes a right angled turn over the Dhuandhar falls (fall of mist) before cutting a gorge through the famous marble rocks near Jabalpur. Then is a 320 kms. long valley south of Jabalpur and Hindiya. This fertile silted valley lies between the Vindhya and Satpura range. The Narmada flows through more thick jungles and hills before it reaches the plains of Gujarat. From here onwards, the river is navigable by boat and ferry.

The Mahadeo hills of the Satpura range is famous for being Kipling country, where the forests of Seoni, Chindwara and Batui, are the habitat of the characters in 'Jungle Book'. High up at the source of the river is tiger country and according to the statistics of 1987, 1,800 of the 4,000 surviving tigers of India are found in this region.

Some of the important tributaries of the Narmada are Bangar with its confluence at Mandhata, the Sher and Shakkar which join it at Narsingapur, the three small tributaries of Thava, Chotathava and Kanjal, joining the Narmada at Hoshangabad. The Hiran is the only tributary from the north which joins it near Jabalpur. Though not yet dammed, the waters of the Narmada irrigates an area of more than 90,000 square kms. Infact, 68% of the working population of Gujarat is agriculture based. Besides cotton, oil seeds, tobacco and millet are the main crops of Gujarat. Though it is an agricultural state, its main source of irrigation is wells. Only when the Narmada project is completed, will the state benefit extensively in the irrigation sector. The river has an estuary more than a delta since its swift flow prevents silt deposits at the mouth.

Though the Narmada has flown since centuries through the wild and

rugged mountainous regions inhabited by tribals and remained an ancient pilgrims path, the recent development of damming the Narmada will drown the beautiful temples along its banks and destroy the tribal culture that is so prevalent and typical of the region. The Basin Development Plan includes the construction of 29 major dams, 450 medium dams and 3,000 minor dams on the river and its tributaries. When this project is completed, it will constitute the largest river basin development in the world. Though the project was planned several years ago it faced a lot of threat from environmentalists. But the insistence of carrying it through by the state of Gujarat has made the central government give the clearance for the construction of the Sarovar at Nawagaon in Gujarat and the Indira Sagar or Narmada Sagar at Punesa in Madhya Pradesh. Five other projects have already been completed-the Tawa on the Tawa river, Sukta on the Sukta river, Bargi Phase I and Bargi Phase II on the Narmada river and Kolar on the Kolar river. The Kolar is primarily a drinking water project to provide water to the city of Bhopal. Between Narmada Sagar and Sardar Sarvohar, a total capacity of 1,800 megawatts of hydro-electricity is expected to irrigate over 19 lakh hectares of land in Gujarat. By doing so, the Rann of Kutch will be converted into a green belt. The Narmada waters will also feed the parched towns of the Saurashtra region of Gujarat.

The other river that flows westward from the Deccan region is the Tapti or Tapi. It is also an ancient river and flows from the Riksha hills in the rugged tribal area of Betul. The name Tapti is derived from the hot springs which are found in the fertile valley north of the Ajanta range. It is from here that the Deccan plateau range begins and moves on in a southerly direction. This area is of historic, biological and meteorological significance-the Mughals and the British moved through the heart of India via the Burhanpur Gap; the southerly monsoons also penetrate through to move northward; there is also a biological explanation to the species of animals of the extreme south having their counterparts in the north, in the foothills of the Himalayas-due to the drifting apart of the landmasses of the Satpura. The Tapti flows out from a sacred tank at the small little town of Multai and moves westward for 720 kms. The two rivers rising from the north-west Deccan plateau, both named Purna, form tributaries,

one joins the Godavari that is flowing eastward and the other joins the Tapti to run eastward.

The riverside fair of Vautha is held on Kartika Purnima in the Ahmedabad district of Gujarat. It is held at a place called Saptasangam *teertha*, which is 61 kms.(38 miles) from Ahmedabad. The *teertha* has derived its name from the fact that it is sangam (confluence) of *Sapta* (seven) rivers, namely the river Sabarmati and Vatrak and the other five being Hathamati, Meshvo, Khari, Majham and Shedhi, which are the tributaries of the former two rivers. The fair held at the confluence of these rivers is one of the largest fairs of Gujarat and largely attended by both the rural and urban communities. Devout Hindus bathe in the Sangam and also perform puja for the dead. At night, lighted earthenware lamps are placed in shallow bowls made of leaves and set afloat on the waters.

On *Raksha-bandhan* day, which is celebrated to tie the bond of love and protection between brothers and sisters, another celebration also takes place on the river banks and beaches all over Gujarat and Maharashtra. Fairs are held and people gather at the water-fronts and offer coconuts to Varuna, God of waters. This is the full moon night of *Narial Purnima* and people offer coconuts to the sea as well, to appease its fury. This is the end of the monsoon period and after performing the *Narial Puja*, the fishermen set out fishing on the high seas. Those living away from the coast offer coconuts to rivers, lakes and tanks in their vicinity. On this day the three castes of Hindus, namely the Brahmins, Kshatriyas and the Vaishyas, change their old sacred threads for newer ones.

Ganesh Chaturthi or Vinayaka Chaturthi is celebrated in honour of Ganesha, the God of wisdom and success and the remover of obstacles (Vighneshwara). He is always propitiated at the beginning of any important event or even the start of any education. The *Puranas* say that he was worshipped even by the gods-Brahma worshipped him before creation, Vishnu before vanquishing Ball, Shiva before destroying the three cities of Tripura, Durga before vanquishing Mahishasura, Seshanaga before carrying the earth on his head, and also Kamadeva before he conquered the universe with his arrows of love.

The legend of Ganesh's birth is very popular and even today, granny's narrate the story to their grand children. Parvati, the wife of Shiva had no children and she felt very lonely and felt the need of someone she could trust and love. One day she rubbed the dirt off her body and mixed it with oil. From that dough she moulded the image of a boy and Brahma breathed life into it. Parvati was delighted and named him Ganesha. She appointed him as her doorkeeper to guard her apartment. One day, while Parvati was bathing, Shiva walked in, unawares of the little Ganesha. He fought Shiva and tried to prevent him from entering the apartment. In the fight that ensued, Shiva chopped off Ganesh's head. Parvati was unconsolable at the loss of her son and asked Shiva to bring him back to life. Shiva asked the assembled gods to go and fetch him the head of the first animal they found sleeping with his head facing the north. And that happened to be an elephant, and thus, Ganesha the little boy had the head of an elephant.

There is another interesting story about Ganesha. Ganesha loved to eat and one of his favourites was *modak* (sweet rice balls). One day, he ate one too many and decided to go to the forest to digest them. Seated on his mount the mouse, he set out, but on the way, Vasuki the snake slid across their path. The mouse took fright and bounced off making Ganesha fall to the ground. His overstuffed stomach burst open and modaks came rolling out. Ganesha ran after them and picking them up one by one and stuffed them back into his belly. To prevent them from falling out again he tied up his stomach using Vasuki the snake as a belt. It so happened that the moon and his wives were watching it all and they burst out laughing. Ganesha was offended and he cursed the moon. That is the reason why the moon has a scar. Ganesha also announced that whoever saw the moon, would face a calamity. The moon begged for forgiveness for his insolence and Ganesha finally gave in. But, he told the people that they would not look at the moon only on Ganesha's birthday. And therefore on Ganesha Chaturthi day devotees are forbidden to look at the moon.

On this auspicious day, devotees throng the rivers and the seaside, bathe in it and worship the clay image of Ganesh and offer sweets to him, especially *modak*! Devotional songs are sung and the image is finally

immersed into the river or the sea. He is also the god who grants a good harvest and therefore clay is collected from the immersion side and thrown into the fields to bring good luck for the next harvest.

With this we conclude our journey along the rivers, but only of those in the northern regions of India and in the central Deccan. In the following chapters we will learn more about the various rivers of the south, which are as significant to its people and the country they live in.

Godavari-The Dakshina Ganga

The river Godavari is the real divider of north and south India, enfolding in its course across the sub-continent, the religious sanctity of the northern rivers as well as the aboriginal trend of worship of nature and its forces of the south. One distinctive feature differentiating the rivers of the north and the south is that the rivers of the north are perennial, flowing throughout the year, since they are fed by the monsoon rains as well as the snow of the Himalayas, whereas the rivers of the south are fed by the north-east and south-west monsoons. During these months they tend to overflow their banks but during the summer months they are narrow streams in most places.

The Godavari is also called the 'Dakshina Ganga'. Its 1,450 kms. course entails it to being the longest of the east-flowing rivers of the south. It flows along the northern Deccan, descending from the Western ghats, or the Sahyadri range near Nasik, which runs from the river Tapi to Terkhool creek near Kanyakumari.

The watershed of the Sahyadris especially in the central parts of Karnataka with its wooded ghats and spectacular waterfalls are breathtakingly beautiful sights. The main source of the Godavari, within sight of the Arabian sea, is 129 kms.(80 miles)from Bombay, near the Thal ghat and it flows south of east into the Bay of Bengal. It is twice the length of river Kaveri and her drainage basin is the second largest in India. As compared to the Ganga whose drainage basin is 25% of the total area, the Godavari covers 10% of the total area.

The 200 year old black stone temple of Trimbakeshwar marks the source of the Godavari. It houses one of the 12 'Jyoti' Lingas' of Shiva.

Many bustling towns are situated on the bank of river Godawari's course. It starts its course on the Brahmagiri hill in Maharastra and flows towards eastern side.



The Godavari rises from the high plateaus behind Trimbakeshwar and trickles down into the tanks built around the temple. The main tank of Kushtvertha has an architectural beauty of its own and it enhances the sanctity of the temple and its surroundings. One has to trek a steep and treacherous path to reach the actual source of the Godavari. High up on the hills is a *kund* or a tiny stone well from where the water trickles down the walls of the black cliffs and from here it forms a narrow stream flowing past Trimbakeshwar and onward, to reach Nasik. This is one of the four sites of the *kumbh mela* or the *Sinhastha mela* held every 12 years and about which you have read in detail in the previous chapters. Along the banks here, there are 2,000 temples and numerable bathing ghats. There is an incident in the Ramayana that relates to this city. When Laxman, brother of Rama was fed up of the persuasions of Surpanakha (sister of Ravana) to marry her, he chopped off her nose and it fell where Nasik stands today. The Godavari here is very polluted. It is also believed that Rama and Sita stayed on the banks of the river at Panchavati.

Up in the hills around Nasik are the hill-fortresses of Shivaji. The highest peak here is the Brahmagiri 1,262 meters (4148 feet) where the river takes a steep turn and flows on past the town of Paithan, famous for its silkweaving. At Brahmagiri it was sage Gautam Buddha who performed penance after killing a cow and hence the name Godavari.

Numerous dynasties ruled, conquered and diminished in these regions of the Deccan-the Satavahanas and the Chalukyas were spread across Maharashtra and more than a century and a half later, the Marathas ruled Andhra and Tanjore. The Rashtrakutas of Karnataka were the builders of the Ellora and Ajanta caves near Aurangabad. These caves were scooped out of rocks over 10 centuries ago. There are 34 rock-cut temples here, representing Hindu, Buddhist and Jain faiths. Nearby, 96 kms. (60 miles) from Aurangabad are the Ajanta caves, (30 in number) of the Buddhist faith. The ancient city of Vijaynagar also came up in the Deccan a century later. But these civilizations were marauded by the advent of the Moghuls in India.

As the Godavari flows further east, it enters the state of Karnataka, past the Manjra valley and the rocks of Golconda. It is now joined by

its northern tributary, the Purna before it reaches Nander, the Gurdwara town of Huzoor Sahib, where the Sikh Guru Gobind Singh was assassinated in the year 1708.

By now the river has entered Andhra Pradesh and flowing past Warangal near the 80th meridian, it is joined by its tribal tributary, the Pranahita, which has its source in Maharashtra and it brings down the drainage of the Mahadeo hills. The famous Ramappa temple raised by the Kakatiya dynasty and well-known for its architectural beauty is situated north of Warangal. The tributaries of Indravati and Sabari (associated with the story of Rama), also joins the Godavari. The course of the Indravati marks the border of Madhya Pradesh.

The Manjra is its main southern tributary and it drains a large part of the former state of Hyderabad, which is now partly in Maharashtra and partly in Andhra Pradesh. By now the Godavari is 4 kms. wide but this again is only during the monsoon season. Here along its banks is the temple of Kaleshwaram, in which is one of the three lingams which gave Telengana the ancient name of 'Trilingadesh'. The river flows peacefully on, the colour, a light blue.

Near Khammam and Kottagudem, across the bridge over Godavari is the temple of God Bhadrachalam, associated with the *Ramayana*. The forests around this part of the Godavari are the *Vanaprastha* land where Ram, Sita and Laxmana spent 14 years in exile. The temple of Bhadrachalam on the hill-top is one of the fore-most of Rama temples and legend says that at Parnasala, a place 30 kilometres from Bhadrachalam, Ravana had abducted Sita and it was here that Rama and Laxmana had crossed the river Godavari when they began their journey in search of Sita. Bhadrachalam is also famous for being the home town of Ramdas, a devotee of Rama, whose songs are so well-known all over the country. The story of this great poet is quite interesting-Ramadas was a *tehsildar* and his real name was Gopanna. There was an old woman in his *Tehsil* who once had a dream in which she saw three idols in a forest on top of a hill. The next day, accompanied by her daughter, she went into the deep forest and found the idols of Rama, Laxmana and Sita, on top of the hill, just as she had visualised in her dream. She became their devotee and would go up to worship them everyday. When the people of

her village asked her about her daily visits to the deep forest, she told them she was going to a temple. They were amused by her answer, since they believed that there was no temple in the dense forest. Once, the story of her mysterious visits to a temple reached the ears of Gopanna the 'Tehsildar'. But he took her story seriously and went with her to see the site. When he saw the idols under a thatched roof, which Thimakka had made herself, he underwent a great transformation. And from that day onwards, he decided to spend the rest of his life singing praises of Lord Rama. He also built a beautiful temple here. Very soon people came from far and wide and journeyed through the forest to hear Ramanna and also visit the temple, and they named him Bhadrachala Ramadasa. Today Bhadrachalam is no longer a small village but it is a pilgrim centre and has 24 temples all clustered in close proximity. The stone temple built by Ramadasa and housing the idols of Rama, Laxmana and Sita is right in the midst of them. The legends also say that Lord Bhadrachalam himself is supposed to have descended on earth in the form of a human, to ransom Ramadasa, who was later taken prisoner by a Qutb Shahi King.

The Godavari which was flowing in a wide valley and frequently breaking up into several channels, now flows into a different geographical region. Many tributaries join the Godavari as it flows along. The Pranahita which has its source in Maharashtra joins the river followed by Indravati and the Sabari further down. At this juncture, the Godavari is four kilometres wide. But it once more narrows down when it flows through the Eastern ghats. From the junction of Pranahita, the Godavari leaves the lava plateau region and enters a trough of eroded rocks that extend right up to the sea. This feature is responsible for the wide break in the Eastern Ghats and also for the wide depth of the coastal plain at the mouth of the Godavari and Krishna.

Ninety seven kms.(60 miles) from the sea, the river leaves the trough and breaks through the ghats and falls in a magnificent gorge which is only 182 meters (200 yards) wide. The vast delta of the Godavari is virtually parallel to that of the river Krishna and infact both the rivers are connected by canal.

The Godavari now curves into the prosperous town of Rajahmundry,

formerly known as Rajamahendravaram, which is close to the ancient site of the capital of the Eastern Chalukyas. Here the Godavari flows as a broad and mighty river. The railway bridge on the river here is the second largest in India and contains 56 spans. Rajahmundry is an ancient and traditional town, having seen many dynasties. Once every 12 years, the 'pushkaran' festival is celebrated here, which is as sanctimonious as the kumbha mela at Prayag. The temples along the river here are dedicated to Markandeya and Kotilingeswara. The famous classical poet of the 11th century, Nannaya, as also the renowned Telugu writer, Veersalingam Pantulu, both lived in Rajahmundry. Here is located another well-known temple of Draksharama.

The Godavari flows on and finally reaches Dhavaleshwaram, which boasts of a dam constructed by Sir Arthur Cotton, in as early as 1845. He came to India from England as a young lad of seventeen and was working in the Irrigation Department. He had seen the stone Anicut dam (a low dam which directs the stream flow into the head of the canal) built on the river Kaveri by the Chola kings and he designed and built this dam along those lines. He also built another dam on the river Kaveri called Melania or the upper Anicut. He is the man responsible for the building of a dam on the river Krishna near Vijayawada. Not only did he build the dam but also planned a canal system that would fill the lakes and tanks, which in turn would improve irrigation. He is remembered even today as the pioneer of a well-planned irrigation system in southern India.

After the Godavari surpasses Dhavaleshwaram, it is divided into three streams-the eastern stream is called the Gautami Godavari, meeting the sea at Yenam, the middle stream is called the Vaishnava Godavari, which merges with the sea at Narsapur. All the three together form a vast fertile delta area and it is considered to be one of the richest rice-growing regions of India. Rich in legend, the word Godavari signifies the giver of cows, a euphemism for prosperity. It is also known as Gautami as it was supposed to have been brought down to earth by sage Gautama. The Godavari delta attracted the French, the Dutch and the English settlers and it served as a very useful waterway, making travel easy through the ferry system, besides being a mode of transportation of teak logs and bamboo. Its banks are rich in teak and bamboo forests.

Krishna-The Inland River

The Krishna is another inland river of the south, rising from the hill-station of Mahabaleshwar in the northern Ghats of Maharashtra from a height of 1,400 meters above sea-level. It is at a distance of 64 kms. from the Arabian Sea and 145 kms. south-east of the city of Bombay. An earlier summer capital of the British Presidency during British rule, it is even today, a very popular hill-station for the citizens of Bombay as well as the people of Gujarat. The total length of the river from its source to its mouth is 1,290 kms. It starts as a small spring near the temple of Panchaganga. Krishna has 10 main tributaries joining it from the north and south. The river Bhima is one of the main tributaries, flowing 720 kms. before it joins Krishna, north-west of Raichur.

At Mahabaleshwar, the shrine of Shiva and the Krishnabai temple are places to visit. Infact the Krishnabai temple claims to be the source of five Deccan streams-the Krishna, Koyna, Venna, Savitri and Gayatri. They emerge from a large white rock just behind the temple. The beautiful valley of Koyna has now been dammed but the people live in constant fear of the tremors caused due to its being located in the earthquake zone.

The Krishna flows east-ward, past the picturesque hill-station of Panchgani, to reach Satara. Close to Mahabaleshwar is the well-known fort of Shivaji at Pratapgarh. The historical and popular incident of the Muslim general Afzal Khan, who was also the brother-in-law of Emperor Akbar, needs mention here. Shivaji had invited him to his fort but the Muslim general smuggled in a knife with the intention of assassinating Shivaji. But Shivaji had also hidden on his person, the metal claws of a tiger and managed to overpower Afzal Khan and kill him as well. The claws

are on display at the Shivaji museum at Satara. Where the river Bhima joins the Krishna you will find the remains of Buddhist architecture.

Pandharpur is a popular pilgrimage centre on the banks of the Bhima. The presiding deity is that of Vithala, the Vaishnava deity of the *Bhakti* cult. Legend says that once a Brahmin named Pandalik went on a pilgrimage with his wife and old parents. While his wife sat on a mule during the journey, his parents trudged along behind on foot. At Pandharpur, he took refuge at the house of a very pious brahmin, who looked after his old parents with great devotion. Pundalik also saw three richly-dressed women doing the menial chores of the house. These women were actually the river goddesses Ganga, Yamuna and the Saraswati, who volunteered to work for a good son who worshipped his parents. Pundalik was ashamed of his own neglect of his parents and decided to settle down in Pandharpur. One day Lord Krishna appeared at his doorstep while he was serving his parents. Without looking, he threw a slipper at the intruder. Krishna was very pleased with Pundalik's devotion towards his parents and he left his image on the brick which the temple enshrines. It is said that the deified saint was a later incarnation of Krishna. The deities of Vithoba or Krishna incarnate and Rukuba or Rukmini are worshipped with great reverence at this temple.

The trunk road from Hyderabad to Bangalore crosses the river Krishna near Kurnool in Andhra Pradesh, where it is joined by another southern tributary, the Tungabhadra. It is the most important and longest tributary of the Krishna. The two rivers, the Tunga and the Bhadra meet near Shimoga.

Not far from Shimoga is Sringeri, the birthplace of Adi Shankaracharya, who founded his first *math* there. A very beautiful temple with the pillars of the Zodiac, carved during the dynasty of Vijayanagar is also found there. The town has a very serene and scholastic atmosphere.

The river Tungabhadra is part of the Krishna river system and yet is a separate river by itself. The Tunga and Bhadra have their source very close to each other on the Gangamula peak of the Western Ghats near Mysore, at a height of 1,200 meters. The Tunga turns north-east past the town of Sringeri and beyond Teerthalli and its mountain caves. Flowing

through bamboo forests and coffee plantations, and then through deep valleys between broken chains of hills till it joins the Bhadra at Kudli. From here on it is known as the Tungabhadra. Three other rivers join it in Mysore State-the Sharavati, the Kumudvati and the Varada. The Tungabhadra flows as a separate river for a distance of 645 kms. This river is of great help to the people of Andhra Pradesh and Karnataka. It brought relief to the districts of Raichur and Rayalaseema which were frequented by droughts and famines. Across the river at Mallavpuram near Hospet, is built the Tungabhadra dam. The water stored is used for irrigation as well as for electricity.

On the banks of the Tungabhadra, 14 kms. from Hospet, are the ruins of Hampi, stretching out 26 kms. once the seat of the ruined city of Vijayanagar. The wild and beautiful landscape is as overpowering to the eye as the ruins. The epic *Ramayana* says that on either side of the Tungabhadra in these hilly regions, is 'Kishkinda', the country of the monkey King. It is here that Rama met Hanuman and Sugriva, the monkey king. The river site is called Pampatira and is considered very sacred since time immemorial. The area was given the status of a city and named Vidyapuri or the city of learning and later around 1336, it was renamed Vijaynagar or the city of Victory, by the two brothers Harihara and Bukka who were advised by the Saint Vidyanarayana to build this city here and defend the Hindu faith from the onslaught of the Muslim invasions from the north. The empire survived for almost 250 years and it was at the peak of its glory during the reign of Krishnadevaraya. Travellers came from as far as Persia, Russia, Portugal and Italy and wrote praiseworthy accounts of the place. The city was completely destroyed by the combined forces of the Deccan Sultans in 1565, when they mercilessly slew more than 100,000 inhabitants and pillaged the city for nearly 6 months.

The Vijaynagar kings built many stone dams on the river Tungabhadra in the 14th and 15th centuries. Modern engineers have constructed a dam across the river at Mallapuram near Hospet. The Gudappah Kurnool canal is one of the largest canals feeding the region.

The temples of Vitthala, Hazara Rama Temple, depicting scenes from the *Ramayana* and the *Mahabharata*, the *Mahanavami Dibba* or the royal

sent from where the King watched the Mahanavami festival and the lofty Veerupaksha temple built later in 1510, by Queen Lokamahadevi in honour of the victory of King Vikramaditya over the Pallava capital of Kanchi, dating to the 9th century, are the historical remains along the river. The Tungabhadra joins the main river near Kurnool in Andhra Pradesh.

The Krishna river comes down the ghats near Raichur. The hill-tracts of Karnataka are mingled with innumerable small rivers such as the Hiranyakashi, Varna, Vedganga, Dudhganga and Panchaganga. They all flow eastward into the Krishna. You will be surprised to know that fifty eight rivers, large and small, rise from the 2,000 million years old rock bed of the Deccan!

Near Kurnool, on the southern bank of the Krishna, is the tiger reserve of Nagarjunakonda, the heartland of the tribe called the Chenchus. This region was one of the finest Buddhist centres of the ancient world. Archaeological findings discovered in 1926 proved that this site named after the great Buddhist philosopher Nagarjuna, who lived in the 2nd century A.D. was the capital of the Ikshavaku dynasty. The sculptures and inscribed pillars created in memory of the dead kings, queens, nobles and artisans and even the religious persons, mostly from the 3rd and 4th century, are on display at the island museum where the site has been reconstructed. A university had flourished here in the 3rd century A.D. and evidence shows that students came from Ceylon, Japan, China, Tibet and Siam. Also discovered were relics of underground drainage systems, open air burials and bathing ghats. The Nagarjunasagar Dam which is the largest masonry dam in the world was constructed on the river Krishna here.

As the Krishna flows onwards towards its final journey to the Bay of Bengal, we now come to another very important pilgrim centre - Srisailem. In the ancient past it was also an important Buddhist centre and has been mentioned by the Chinese travellers Huan Tsang and Fa Hsein in their travelogues. The town is situated in a plateau in the Kurnool district of Andhra Pradesh. And down below, the Krishna flows by in a deep valley and here it is known as the Patalaganga or the Ganga of the neither regions.

The Mallikarjuna temple on the hill was extolled by the Saivite priests

in the 7th century. The Jyotirlingam, manifesting one of the 12 forms of Shiva is worshipped by the devotees. Great rulers in the past have visited this hill temple and made valuable contributions- to mention one name, the Vijayanagar king, Krishnadevaraya. The Maratha chieftain Shivaji was so overcome by the beauty of the forest *teertha* that he decided to build a *gopuram* at Srisailam. Famous for its frescoes, bas-relief and sculptures depicting scenes from the *Ramayana*, the Mallikarjuna temple enshrines within it, the main deity of the Chenchu tribe. It has a thousand steps leading down to the river Krishna. It is said that these steps were built by the Reddis of Kondaveedu in the 15th and 16th centuries. It is also said that Lord Shiva married a girl called Lakshmi of the Chenchus tribe and these tribes people are great devotees of this temple. Mahashivaratri, the festival that marks the end of winter is an important festival at this temple. Thousands of pilgrims take a dip in the Patalaganga and visit the temple for a *darshan* of Mallikarjuna.

The famous philosopher Saint of the 8th century, Adi Shankaracharya, also spent a few years of his travels at Srisailam and bathed in the Patalaganga everyday.

Between the rivers Bhima and Krishna is the ancient city of Bijapur with the Mausoleum of Mohammad Adi Shah, the Muslim ruler of the Deccan, Gol Gumbaz, built in 1659 and considered to be the second largest mausoleum in the world.

The Krishna flows on further eastwards and reaches the town of Amaravati, the capital of the Satvahana Kings and also a well-known Buddhist centre which has a *stupa*, exactly like the one in Sanchi, but intact, even larger in size.

Further on along the river a little before Raichur, is the popular temple of Mantralayam, in memory of Raghavendra Swami, a saint of the Dvaita School, who took *jivan samadhi*-a Hindu philosophy where a Saint wants to leave this world on his own will and he gets constructed a room with an opening on the top. He then sits in the centre of the room and his disciples wall up the opening. He meditates till he breathes his last.

The Ahobilam hill temple is 140 kms. south-east of Kurnool and is dedicated to Lord Vishnu in his lion incarnation, Narasimha.

The river Must is the third tributary of the Krishna. It starts south of Hyderabad and flows southward. The Must is also historically connected to the Fort of Golconda, situated 13 kms. from the city of Hyderabad. This was the capital of the Qutb Shahi dynasty. It was founded by the Turkoman Sultan, Qutb Qait Shah, who was the Governor of Telengana under the Bahamani Kingdom. In 1512, he declared himself independent and established Golconda as his capital. In 1687, the fortress was treacherously besieged by the Moghul Emperor Aurangzeb, though it was held out by the last Qutb Shahi king for seven long months. The main citadel is on top of the hill, and one of the finest tombs of the royal cemetery is that of Abdullah Qutb Shah. Golconda is also famous for its diamonds, yielding the famous *Kohinoor* among others.

Beyond Raichur the Krishna flows through hilly terrain and reaches the city of Vijaywada. It descends nearly 120 kms. within a distance of 5 kms. The river which flowed rapidly down the hills and mountains now slows down its pace. From here onwards, boats begin to ply on the Krishna and they are used for fishing upstream on the river.

Vijayawada (medieval times known as Rajendracholapuram, (after Rajendra I) is surrounded by many hills, the most important being the Kanika Durga Hill and the Sitanagaram. The goddess Kanika Durga and Lord Malleshwara Shiva are greatly revered by the people of Andhra Pradesh.

Three kms. east of Vijayawada, on the banks of the Krishna, are the Pallava caves of Mamallapuram. These caves, Saivite in nature stretching 16 kms. along the river were excavated in the 6th century A.D. and the Akkanna Madanna cave in Vijayawada is considered to be one of the earliest among them. Legend goes to say that in the hills around Vijayawada, Arjuna lived and did penance in worship of Lord Shiva and for that, he was granted so powerful, that he could not be defeated. A few kilometres south of Vijayawada begins the delta region of river Krishna. Buddhism was once the main religion of this area. Relics and ruins in towns along its banks have proof of it. Amaravati is one of the towns. It is believed that the

'Deathless People', who had obtained the boon of freedom from death, once lived here. And that is the reason, the city is named Amaravati. Near the present town was situated Dharanikota, an important Buddhist centre. Once the capital of the Satavahan Kings, it is now in ruins. The *stupa* at Amaravati is exactly like the one at Sanchi, but bigger.

Sixty-five kms. east of Vijaywada, the river divides into two. The southern branch further breaks up into many tributaries and they join up after a few kms. to meet the sea at Masulipatnam. The river Krishna after its arduous journey, finally merges with the sea in the Bay of Bengal.

Kaveri-The River of Life

The Kaveri is the shortest in length amongst the 7 holy rivers of India and is often called the Ganga of the south. It is also known as the river of life beneficially influencing the lives of the people living along its banks and tributaries. Many great centres of Tamil culture were spread on its banks, and the river has been glorified in great lengths through Tamil literature, music, religious liturgy and the culture of the land. The river's rich heritage is reflected in the creative abundance and proves the truth of poet Illango's thoughts, that the Kaveri sustains.

Flowing through the areas of Mysore and Tamil Nadu, the total length of the Kaveri is 756 kms. Its source lies in the Sahyadri range on the Brahmagiri mountain in Mysore, 1,320 meters above sea-level. The region of Kodagu or Coorg is the main source of the river and it is within sight of the Arabian Sea. Bhagamandalam, a forest habitation, is the last villlage at the base of the mountain from where a bus goes up to Talakaveri, the actual source of the river. It lies near the border of Karnataka and Kerala. Towering over the jackfruit trees and coffee plantation is the Agastaveera temple with the images of Goddess Kaveri and Goddess Lopamudra painted on the wall. The temple is built in the true Kerala style.

The spring from which the Kaveri emerges is in the form of a trough, four feet by four feet. Pilgrims take a holy dip in the tank, which is also fed by the spring of another smaller tank. From here the Kaveri flows into a third hollow and disappears underground, surfacing again after some distance. Flowing downhill for about 6 kms. she reaches Bhagamandalam, where she swells up into a proper size of a river.



The Kaveri is often called the Ganga of the south. Its source lies near the border of Karnataka and Kerala in the Sahyadri range and it flows through the states of Karnataka and Tamilnadu.

There is a legendary tale sung about the birth of the Kaveri which goes to say that there was a childless king named Kaveran who did *tapas* or meditation and Brahma gave him a boon in the form of a daughter. Later, Sage Agastya fell in love with her and asked for her hand in marriage. Kaveran agreed but with a condition that he would never leave his daughter alone. Agastya promised and the marriage was solemnized. They lived blissfully in a hermitage and Agastya never left his wife alone or out of his sight. But one day he got so engrossed in teaching his disciples that he did not return home. Kaveri thought the worst had happened to her husband and decided to end her life.

She jumped into the tank where her husband had his daily bath. However, she did not die and disappeared underground in the form of a river. Flowing up the Brahmagiri mountain, she reappeared as a spring. In the meanwhile, Sage Agastya, who was searching in vain for her, suddenly spotted her in the form of the spring and implored her to return to her home. Kaveri agreed after some persuasion but only as half her form. The other half would continue to enrich the land where she would

flow as the river, Kaveri. And every year, on a particular day in the month of October, the Tulasangam festival is celebrated as the birth of Kaveri by the people of Coorg, to whom she had promised an annual visit. On this day, a holy dip in the tank is considered as auspicious as taking a holy dip in the Ganga.

There is yet another legend about Kaveri's birth which says that a Rishi named Kavera did intense meditation and Brahma gave him a boon in the form of a daughter named Lopamudra. The Saint gave her hand in marriage to Saint Agastya. Legend says that she was manifested in two forms-one was the human figure and one was in the form of holy water in the *Kamandala* or the *Tuja*, vessel of Agastya. One day, a crow toppled the vessel and the 'holy' water started flowing endlessly from the foot of an aonla tree.

Another myth goes to say that Agastya Muni prayed to Shiva for water to found a holy place. Kaveri also prayed to Shiva, who then filled Agastya's bowl with Kaveri water. When Agastya reached south India, he sat down to meditate with the bowl in front of him. At the request of Lord Indra, Ganesha disguised himself as a crow and sat on the edge of the bowl and upset it. And the water flowed out as the river Kaveri.

At first it was just a spring at Talakaveri and at the foothills at Bhagamandalam it gathers its first tributary the Kanaka, along with another sub-terrien spring called the Sujyoti. Flowing along its course, the Kaveri receives the tributaries of Hemavati, Lokapavani, Shimasanadi, Arkhavati, Thoppaiyaru, Sarabhanga and Manimuthar from the north and from the south it receives the tributaries of Hole, Sagarghate, Lakshmantirtha, Kabini Kundala, Bhavani Noyyal and Amaravathi. Through thousands of years, many tales have been told about the great river Kaveri and they reflect the gratitude felt by the generations whose lives have been fostered by the river.

From high up the Brahmagiri hill you can get an enchanting view of vast greenery dotted with golden paddy fields. The beautiful landscape is eyecatching-the western ghats to the south and east, the Chamundi hills of Mysore and the Wyanad mountains of Kerala in the distance and towards the far west, a glimpse of the Arabian Sea.

The rivers originating from the Western Ghat's in the south have very famous and beautiful waterfalls. These are Courtrallam falls in Tamilnadu.



The youthful and impetuous exuberance of the Kaveri as it flows through the lush green land reminds one of an innocent and delightful young girl. It even displays different moods and special characteristics, like that of a maiden. In one region it is the Akhanda Kaveri, swelling over its banks, at another place it is the Adu Thandam Kaveri or the Kaveri where a goat can jump across. It tumbles softly down the steps at Brindavan Gardens near Mysore and is a mighty roaring river at the Sivasamudram Falls. Even after millions of years the Kaveri is youthfully vital.

Several great centres of Tamil culture were spread on the banks of the Kaveri and many beautiful temples were also built there. The creativity that has blossomed on her banks reveals the rivers rich heritage.

The lives and habits of the ancient people who toiled these lands centuries ago, even before the river was harnessed by dams, has a direct impact on the people of Tamil Nadu. Almost 4,000 years ago, in prehistoric times, single stone Age people lived in these regions, practicing agriculture.

Between 1500 B.C. and 1000 B.C., this region was inhabited by people of neo-lithic culture. At the archaeological site of Payampali on the Madras-Bangalore highway, the remains of this stone Age inhabitation are exhibited. On display are the stone axes used for felling trees and the bows that were used for hunting. You will also find the cooking pots reassembled from pieces found on the site as well as beads of clay worn by the women as adornment. Evidence shows that gold was extracted from the Kolar gold fields even in the Stone Age. Archaeologists have also unearthed tools and other implements of the later period between 1000 B.C. to 300 B.C. During this era, circular and square huts were built and iron weapons and tools were made. Women wore ornaments of gold, heads as well as glass bangles. Metal vessels were also cast, and coloured drawings reflecting their daily lives were also found. These revealed the ancient tradition of the people to work hard and reap their fortunes. This custom is still prevalent in the Tamil culture today. The people of Tamil Nadu are known for their industriousness and they have very intelligently availed of the waters of the Kaveri to enrich their lives.

At Bhagamandalam where the river reaches the foothills, a story goes to say that Tipu Sultan, one of the rulers of Mysore in the 18th century, while returning home from his invasion of Coorg, halted near a rock to rest for a while. On looking up the mountain he sighted a gushing stream. He was dumbstruck by the beauty of the river and bowed his head in reverence. Ever since, the rock is called the Salutation Stone. The deities of Shiva, Subramaniam, Ganesha and Vishnu are installed in the Bhagamandalam temple, situated at the confluence of the three streams. During the reign of Tipu Sultan, the temple had been converted into a fortress but later the Kodagu Prince Veerarajendra put silver tiles to replace the brass tiles when he renovated the temple. It is said that Rishi Agastya worshipped Lord Muruga here and received his *darshan*. During the Kaveri River festival, the pilgrims take a few grains of paddy from the *Akshayapatram* granary of the Bhagamandalam temple and put it into their own granaries to seek divine blessings for a better harvest.

The river Kaveri flows right through the mountainous region of Coorg, which is covered with dense forests. Towards the eastern slopes the elevation is not very high and you will find bamboo forests and sandalwood trees in abundance. Also found on the hillsides are coffee plantations and orange groves. Wildlife is in plenty in these mountains-tigers, elephants, panthers, boars, bears and smaller predators as well as foxes and deer, roam on the 1500 kms .of Coorg country. It is at the point where the river leaves Coorg and joins the plains, that 2 more rivers, the Hemavati and the Lakshmanateertha join her. From here onwards the Kaveri becomes a deep and wide river. As it steadily flows past Paloor and Kushalnagar, the Kaveri loses its youthful friskiness and is often not visible for miles on end, as it meanders through the dense bamboo forests. It is at the junction of the three rivers where the Kunnambadi dam was built. It was started in the year 1911 and took 12 years to be completed. It is the first of the 12 dams that were constructed in the state of Mysore. Its builder and architect was Sir Vishveshwarayya, a man with a genius and a recipient of the highest award of the nation, the Bharat Ratna. He was the Dewan of Mysore when it was a princely state. He also founded the Mysore University and the Bank of Mysore and planned the Bhadravati Steel Plant and many other industries.

The Kannambadi Dam is 40 meters high and 2,600 meters long. The surface area of the water in the reservoir is 128 square kms .and it was named Krishnaraja Sagar after the then king of Mysore. On its banks is laid out the Brindavan Gardens, with its colourful flowers and fountains. At night it is transformed into a fairyland with luminous lights creating an enchanted atmosphere as the Kaveri ripples down the stone steps.

The river flows past Kallepura where you find the ancient Jangamaghatte dam built over 900 years ago. This dam, made of large stone slabs, does not stop the waters from flowing but slows it down and also regulates it. The river drops further till it reaches Sivasamudram where it divides itself into two rivers, the Parachukki and the Gaganachukki. The Parachukki comes cascading down 70 meters (230 feet)as a waterfall and the Gaganachukki thunders down 300 feet, foaming white and creating a most breathtaking sight. Falling 90 kms. down the cliff, the Kaveri is enchanting and untiring. The first hydro-electric project was built here at Sivasamudram and it generates and supplies power to the city of Mysore and thousands of villages around, as well as running the machinery at the Bhadravati Steel Plant and other mills and factories.

The two tributaries of the Kaveri, the Kanva and the Arkavati, drain the plateau of the Kolar gold fields considered to be the deepest in the world, going down to a depth of 3,962 meters (13,000 feet). The Kaveri flows on another 48 kms. and swirls around rocks at the beautiful spot of Hannadu chakra and suddenly thrusts forward a hundred yards of *Make Dhat* or the 'Leap of the goat.' At this junction the bridge between the two rocks through which the river gushes out is just wide enough for a goat to leap across. A little further it is joined by the river Arkavati, which has travelled over a hundred miles through the mountainous region that divides Mysore from Tamil Nadu.

Now joined by the Chinnar river, the second waterfall on the Kaveri is near the Mettur Dam and is called the Hokkenagal falls, *hoke* in the Kannada meaning smoke. The water literally bellows smoke when it hits the rocks below. The Mettur Dam on the Stanley Lake now handles the supply of water and generates electricity to the regions around it. Hokkenagal also has a crocodile breeding farm.

The Kaveri has cleared the last of the ghats. More tributaries join the river from the western uplands at the mouth of the Palghat Gap and it begins to flow more eastward towards the Trichy plains, nurturing the lush green rice fields. Here, once again the third island formation is found. The Kaveri branches off and intact flows as a separate river named Coleroon, for nearly 43 kms. in a north-easterly direction. It then rejoins the main river. On this Island is the famous pilgrim centre of Srirangam. The temple of Srirangam 5 kms. north of Tirichirapalli is dedicated to Ranganathaswamy or Vishnu, who is seen here in his reclining form. Srirangam is the largest temple complex in the country. All the dynasties of the south have been responsible in adding to its architectural expansion. It consists of 21 *gopurams* which are all enshrined within seven concentric walls. The temple is associated with Ramanuja, a great exponent of Vaishnavism of the 12th century. The main shrine is elliptical with four *gopurams*. The most impressive hall is the one which has a thousand pillars and the Seshagiriraya Mandapa in the fourth gopuram is an architectural wonder. In the 1,000 pillared hall, the 4,000 Vaishnavite systems of the Aalwars are recited to the accompaniment of dance by a family of devotees called the Arayars. The Horse Court is a great attraction and a landmark in sculpture and architecture.

Most of the construction of the Srirangam temple complex was done from the 14th to the 17th centuries and the kings of the Chara, Pandya, Chola, Hoysala and Vijayanagar dynasties have all added their bit in building them. The earlier Shrines of Krishna as Venugopala, built in the 13th century also have beautiful sculptures enshrined in them.

The Vaikunda Ekadashi festival is celebrated here in the month of December and draws a large number of pilgrims.

It is in this region of Tamil Nadu that you will find the 3 famous Anicuts-the Grand Anicut, the Upper Anicut and the Lower Anicut, the last one being on the river Koleroon about 108 kms. (67 miles) below the Grand Anicut. It was built in the mid-nineteenth century. These Anicuts are irrigation works which dam the river and some of these date back to over 2000 years. The Lower Anicut irrigates the paddy fields of the Arcot district of Tamil Nadu and it has 60 arches each with a span of

10.5 meters(33 1/2 feet). The top of the anicut serves as a bridge across the river. The grand Anicut was built 1700 years earlier and it was a marvellous piece of achievement for it harnessed the waters of the Kaveri and prevented them from totally draining the Koleroon basin. This ensured equal distribution of irrigated water and it reached out to a million acres of fields. The Tanjore district of Tamil Nadu is considered to be the granary of the south. A little beyond the grand Anicut, the Kaveri waters divide again. One stream flows past the musical *teertha* of Tiruvayur and meets the sea at Poompuhar. The other flows off southward as the Vennar. Flowing separately for a distance of 112 kms.(70 miles), it touches the town of Thanjavur.

The famous temple of Brihadeeshwara is situated in Thanjavur. According to legend, a Chola king named Rajarara I (944-1013 A.D.) was afflicted with leprosy, which according to his guru Haradatta, was due to a curse from his previous birth as a hunter. The guru recommended that to propitiate the Gods, he should construct a Shiva temple and install a Shivalinga brought from the river Narmada. He also asked him to build another temple for the goddess Brihannayaki and to make a *Nandi* (Bull). The king, accompanied by 64 merchants went to the Narmada river. But when he took the 'linga' out of the water, it began to grow in size. The temple was created by a craftsman Soma Varma over a period of 12 years. The Shiva linga in the temple is 1.2 meters tall and has a circumference of 2.1 meters. The Nandi Mandapa has a massive structure of Nandi which is 3.6 meters high, 5.9 meters long and 2.5 meters broad. Thanjavur is also famous for its Saraswati Mahal Library which has nearly 34,000 Sanskrit and Vernacular palm-leaf manuscripts and 6,426 printed volumes, the Sanskrit manuscripts were collected during the 300 year old rule of the Nayanks and the Marathas. Thanjavur also boasts of a museum hosting a beautiful collection of Bronze images.

From Thanjavur the river Vennar is further divided and one branch flows off as Vadavar which after flowing for a distance of 20 kms. enters the Vadavur reservoir. It is now called the Kannanar. This joins up with the Bamani and reaches the sea at Poompuhar. It is an ancient port at the mouth of the Kaveri and even today an early morning sight at the coast

is the rows of cataramans (fishing boats) that roll off on the choppy seas. Ancient evidence proves that the Tamil boatmen went as far as Sumatra in these boats. The Kaveri delta extends about 140 kms. along a coastline that is absolutely straight.

The history of Tiruchi and Thanjavur as well as Thiruvayur abounding in writers, poets and temples is the history of the Kaveri. The wealth that flowed due to the plentiful abundance of the river gave enough time to the people for pursuing their creative interests, giving rise to the 'arts that the Kaveri bred and the philosophy she inspired'. The success of any civilization is its natural wealth and the Kaveri brimmed with it. The communal interdependence was reflected in the harmonious living around the temples and it is the core of Tamil culture.

The most sanctimonious festival on the Kaveri is held at Kumbakonam, situated in the heart of Tamil Nadu. Kumbakonam was once the home of intellectuals, mainly the Brahmins. It is situated on the very fertile banks of the Kaveri and the town boasts of abundance in art and literature, music and dance. The Nageshwara Temple in the heart of the town is one of the finest pieces of architecture representing the 9th century Pallava Chola transition. Miniature panels depicting the story of *Ramayana* are serialized along the base. It is called the Mahamakkam Tank Festival and it is as famous as the *Kumbha mela* held at the Triveni. According to popular belief, the gods headed by Brahma, visit the tank every 12 years to take a holy dip in the holy waters of the tank. Legend says that rivers like the Ganga, Yamuna, Gomati, Kaveri, Saraswati and Narmada, who are known for their purificatory qualities of washing away the sins of people went to Mount Kailash with a complaint to Shiva. Their grievance was that all the sinners washed away their sins in them. But in turn were they themselves going to get rid of the accumulated sins? Shiva asked them to bathe in the sacred Mahamakkam Tank once every 12 years and by doing so, they would be rid of the sins of the people as well as all the future sins they would gather. And so by bathing in the tank during the festival days (the calender date is fixed depending upon the position of Jupiter), the pilgrim gains immensely. After bathing in the tank they also take a holy dip in the river. Devotional songs are sung

and people pray at the temple.

At Thiruvayur, where the Kaveri is joined by four other tributaries, the deity at the temple is Ayyaappan, meaning Lord of the Five Rivers. But Thiruvayur is more famous as being the birthplace of Thiagaraja, the renowned saint-composer of Karnatic music.

In the Tamil month of Tai (Magha) the Thiagaraja Music Festival is held with great fervour in memory of the great composer (1767-1847 A.D.). An ardent devotee of Rama he composed many hymns in his praise. At the shrine of the saint in Thiruvayur, known as the Panchanateshwara, a festival is held on a grand scale on the banks of the river and artists and musicians come from long distances to sing in his memory. Thiagaraja created devotional music that was divine. He felt that the seven *swaras* (musical notes) were born from the five faces of *Shiva*, *Sadhyojaahaadi Panchavathraja Sa Re Ga Ma Pa Dha Ni Varaspatha Swara*. The realization of this music, born from within oneself, confers the ultimate bliss. Music and devotion are two strands of a cord which connects the soul of an individual with the Supreme Soul. Thiagaraja asked, "Is there a better path to God than music and devotion?" This rich culture was nurtured on the banks of the Kaveri and it will continue to evolve as long as the great Kaveri flows.

The Smaller Rivers-A Source of Livelihood

We have covered all the major rivers of India and in doing so, not only experienced the vastness and beauty of India but also the rich cultural heritage that has made this country renowned the world over. The rivers are the mainstreams of the people's lives and on them depends the very existence of the masses. Where they flow in bounty, there is economic stability, a surge of culture and peaceful coexistence. Where they go dry, the people have to struggle for their livelihood, the population is sparse and very few industries thrive; where there is constant fear of floods, there is instability in the lives of the people and economic imbalance create stress. The religious sanctity of the rivers has strengthened the people's beliefs in the importance of being an Indian.

There are many other smaller rivers in the Indian peninsula, some of which are along the long coastline of the sub-continent and they create a rich delta region. There are some rivers which flow inland as larger rivers, such as the Narmada, Kaveri, Godavari and Krishna. The coastal rivers are very small in length. We shall now have an aerial view of the small rivers that flow through the states of Karnataka, Tamil Nadu, Andhra Pradesh and Kerala and study how they affect the simple livelihood of the people who live along its banks.

The first of the rivers we will track down is the Malaprabha river which flows in north Karnataka. This region in the sixth century was the seat of a thriving dynasty-the Chalukyas. The cluster of temples on the banks of the Malaprabha at Pattadakal are evidence to the Chalukyan sensitivity to art and beauty. Archaeological findings show that this is the place where all the Chalukya emperors were crowned. All the temples

were built by the Chalukya rulers and some had the southern influence whereas others had the typical carvilinear towers of the north. To name a few, the temple of Sangameshwara was constructed in 750 A.D. by king Vijayvaditya. The Virupaksha temple was built by Lokamahadevi, the Queen of Vikramaditya, to commemorate the victorious expedition made by the king to the Pallava capital of Kanchi. With carvings that are beautifully sculptured, this temple was built by an architect Sarvasiddhi Acharya (whose name is inscribed on the wall of the temple), who was brought from Kanchi. The temple has a great resemblance to the beautiful Kailasanatha temple of Kanchi. It also houses a Nandi Mandapa and an exquisite courtyard. The beauty of the temple is enhanced as it stands majestically across the river front. To mention another beautiful sight in this region, is the Badami caves overlooking a beautiful lake. Situated 30 kms. from the river-side temples of Pattadakal, Badami was the capital of the Chalukyan King Pulakesin I. The caves carved out of rock and four in number, have beautiful carvings on the brackets and on the ceiling. Each one of them has exquisitely carved sculptures of Shiva in a dancing posture, Vishnu measuring the universe, Durga piercing the buffalo-headed demon and Vishnu in his boar incarnation.

Two other small rivers in Karnataka are the North Pennar and the South Pennar. Their source lies in the Nandidurga mountains of Mysore. While the North Pennar flows a distance of 560 kms. through the Kuddappa Anantapur and Nellore districts of Andhra Pradesh, the south Pennar meanders a length of 620 kms. through the districts of Bangalore, Salan and Arcot. Also called Pinakini, both the rivers are well-known for floods, which occur without any warning. And this happens even when there is water in the Pennar for only two months! Many dams have been built across the two rivers and with the irrigation canals criss-crossing across the states, the land is very fertile. The North Pennar meets the Bay of Bengal south of Nellore and the South Pennar meets it north of Cuddalore.

The Sharavati is another river in Mysore state which flows down from the Western Ghats. The very famous and beautiful waterfalls, Gersappa or Jog Falls is on this river. It drops down a steep cliff from a height of 253 meters and falls down at four levels. The four falls are named

Raja, Roarer, Rocket and Rani. A very popular tourist spot, steps lead you to the base of the falls and you can also reach out to the head of the falls and see the water cascading down in a thunderous roar.

The Palar is a small river in Tamil Nadu. *Palar* means milk in Tamil but ironically the river is almost dry. However, the inhabitants claim that wherever they dig in the river bed, water flows out. The source of the Palar is in Mysore and its waters are used more in Mysore state than in Tamil Nadu, through which it flows. There is an abundant growth of mango, coconut and casuarina trees. The casuarina helps in preventing erosion. The Palar meets the sea at Chaturangapatnam, once a Dutch occupied territory and now an important fishing port. The Sithanumalayaswamy temple on the river Palar at Suchindaram in Tamil Nadu is a very popular religious *teertha*. The temple is dedicated to Shiva, Vishnu and Brahma - *Sthanu* stands for Shiva, *Mal* for Vishnu and *Ayam* for Brahma. One legend says that Sage Atri and his wife Anasuya once performed a severe penance here and the three gods appeared before them in the form of a lingam. Brahma formed the base of the linga, Vishnu the middle and Shiva the top. Devotees throng the temple especially on festival days. Newly married couples come to receive the blessings of the deities. Another legend regarding the temple goes to say that when Devi as Kanyakumari was installed at Cape Comorin, Shiva in the form of Suchindram wanted to marry her. Kanyakumari agreed but with some conditions-that for the marriage ceremony, betel leaves without veins, a coconut fruit without eyes and a mango without a seed would have to be included. The auspicious time for the wedding was midnight. When the gods learnt about this they were worried since they believed that only if Devi remained a virgin would she be powerful enough to help them. They asked Rishi Narada to help them. When the auspicious time for the wedding arrived, Narada made the cocks crow before midnight instead of dawn. Shiva thinking it was too late, did not go for the wedding ceremony. And hence the Devi remained a virgin or Kanyakumari. She was so insulted by Shiva's attitude that she cursed the articles to be used for the wedding ceremony and they turned into shells and sand.

Another small river flowing in Tamil Nadu is the 260 kms. long Vaigai

river. Its source is in the Varsha valley adjoining the Cardammam hills of the lower Western ghats and flowing past the ancient city of Madurai it finally reaches the sea at Palk Straits. Though the river is brimming over during the monsoon season, it dries up for the last three months of the year. Its importance to the state of Tamil Nadu is supported by the joining of the river Periyar from Kerala. Madurai is an epitome of the temple cities of the South. Capital of the Pandyan rulers, who were great patrons of Tamil learning, this city holds a very important place in the history of Tamil Nadu for over 2000 years. Though eclipsed for nearly 70 years by Muslim rulers at the beginning of the 14th century, the Kingdom was re-established and the Madurai Nayak dynasty was founded. The region then thrived till the mid-eighteenth century. There was a sudden growth of imposing structures such as the famous Meenakshi temple and the Lord Sundershwara temple, with their four lofty and intricately carved temple towers or *gopurams*. The sacred tank inside the temple is the golden lotus tank. It is greatly venerated by the devotees and the life of the people of Madurai revolves around the pivotal Meenakshi Temple.

The river Vaigai has been profusely and beautifully described by the poet Illango in his Tamil classic *Silappadlikaram*, comparing her to a young maiden. In olden times, finely carved boats plied on the river and when the war of superiority between the Jains and Saivites, was being fought, the waters of the Vaigai were used to transport their beliefs, which were inscribed on palm leaves and thrown in the river to float upstream. The Chitra festival held on the full moon day of the month of April is marked with bringing of the deity of Lord Alagar to Madurai. It is a time of midnight-long festivities, with people wearing 17th century costumes, dancing and singing in abundance. This festival is also held in other parts of South India.

The river Chitra flows down the Kuttalaru hills in the Tinnevely district past the temple of Chitrugupta situated at Kanchipuram near Madras. Kanchipuram is one of the seven sacred cities of India and the seat of the Sankaracharya, the great exponent of the Advaita philosophy. The deity Chitrugupta is the scribe of Yama, God of Death. Chitrugupta

kept an account of all the good and bad deeds of the people and these records decided the reward or punishment to be given to the individuals after death. On Chaitra Purnima, the bronze statue of the deity is taken in procession to the river. People bathe in the river Chitra to wash off their sins.

In the fertile and prosperous Tirunivelly district of Madras flows another small river, only 120 kms. long, known as the Tambarapam. Since the waters of this river contains coppers (*Tamba* in Sanskrit), it has derived the name Tambarapani. Its source lies in the Podhigai mountain of the western ghats at a height of 1,838 meters. Along its course down the mountain the Tambarapani has many waterfalls, the biggest of them being Kalyanateertham, falling from a height of 90 meters. The entire length of the river is used for irrigation.

The state at the southernmost tip of India is Kerala, criss-crossed by 44 small rivers, the main three being the Periyar, the Bharathpuzha and the Pampa. Of these rivers, 41 are west-flowing rivers and only 3 are east-flowing and these are tributaries of the Kaveri. The longest river is the Bharathapuzha (234 kms.) and the average length of the other rivers is only around 64 kms. They play an important role in enriching Kerala's culture. Today, most of the rivers are being used for irrigation and power, thereby greatly contributing to the economic progress of the land.

The river Periyar has its source in the dense forests of the western ghats in the Sivagiri mountain range. It is navigable inland for about 160 kms. and meets the Arabian Sea, north of Cochin after traversing a total length of 225 kms. As early as 1896, a dam had been built in the Tiruvankur mountains, enabling the waters of the river to flow eastwards through a tunnel that is 1,766 meters long. After passing the tunnel the waters of the Periyar flow through Madurai district of Tamil Nadu and joins the river Vaigai, helping to enrich the land. This tunnel plays an important role of diverting the waters of the Periyar to proper use and which were earlier of no use. Kaladi (48 kms. north-east of Cochin) on the Periyar was the birth place of Adi Shankaracharya, who preached the philosophy of Advaita or non-dualism in the 8th century A.D. The Periyar wildlife games sanctuary is a popular resort on the banks of the reservoir created

by the dam built near the Trivankur mountains. The tourists use motor-boats to get a closer look at the herds of elephants and wild buffaloes and tigers and bears that make their way to the banks to drink water. In 1789, when the Muslim ruler Tipu Sultan was making his aggressive advance beyond Alwaye to seize Travencore, it was the Periyar floods that forced him to retrace his steps.

The other known river of Kerala is the Pampa which has its source in the mountains of Kollam district. Many little streams join up to form this river which is only 144 kms. long. The Kuttanad region is the paddy granary of Kerala and it owes its rich harvest to the Pampa river which irrigates the whole area. The main festival of the Hindus in Kerala is Onam, which falls in the month of Chingam (August-September). The ten-day long celebration ends in a great feat of valour and martial arts. There is also the famous annual boat race on the river Pampa which is a popular attraction not only for the local folk but for tourists from around the world. The most famous boat races are the Aranmula, Haripad and Allepey. These races usually pitch one village against another and with great enthusiasm the men decorate their 'snake boats' and race along to the rhythmic cries of the cox. Spectators line up all along the river banks and cheer the participants.

Situated on the Neeli hills of the Western Ghats, north-east of the river Pampa is the temple of Sabrimalai. Here, the two main festivals held in honour of Lord Ayappan (son of Shiva and Mohini, the enchantress and female form of Vishnu) are the Mandal Puja and the Makar Sankranti Puja. These festivals begin in November and continue till mid-January. Lord Ayappan is the main deity of the village Sabarimalai. The village is named after Sabari who belonged to the *shudra* caste (untouchable caste) and had done severe penance to have a *darshan* (audience) with Rama, incarnation of Vishnu and her wish was granted. In the course of his wanderings in the forest during his 14 years of exile, he came across Sabari. She could only offer him the wild berries of the forest Ber. Since she did not want him to eat unripe fruit, she bit into each one of them to check the taste before offering it to Rama, who accepted it unhesitatingly. It was Laxman who was peeved at her audacity to offer

polluted fruit to his brother. But Rama explained to Laxman that if someone made an offering to him out of true feelings, that offering was more acceptable and valuable than those richer offerings made by people who did it without devotion.

The mysterious rivers of India, gathering and amassing in their transcendings through the ages enlighten us with a great history, a great culture, a great creed of people, so distinctly different from each other and yet all living in harmony, celebrating festivals and sharing their joys and sorrows with one another and with nature. It is through these traversings with the rivers big and small and across the country that I have ultimately fulfilled my search for the root and pulse of this great land that is India. Through these pages you will see the rivers in a wider and more humane perspective, rather than turning your nose away to the flowing mass of filth and pollution-for after all these rivers are the gifts of nature and it is us human beings who have scarred their beauty.

The coming generation has a great challenge to undertake - to give back to the rivers and all that is beautiful in nature, their identity and make this world into a pollution-free heavenly abode!

Save Our Rivers-A Warning! A Plea?

No water in its natural state is ever one hundred percent pure. Even if it falls from the sky, rain gathers minute quantities of impurities from the atmosphere. Plants and animals can tolerate small amounts of impurities in their natural environment and even benefit from them.

Man's pollution of waterways is dangerous and harmful to the plants and animals that thrive in it. Sewage is one pollutant that makes our rivers sick. Overdosed dumping and careless land use practices creates excessive silt, which chokes the river and kills life in it.

There are hundreds of other causes of river pollution. Lead and Zinc waste from mining operations, insecticides, household detergents and other chemicals pour relentlessly into our streams and rivers. Some take their toll by poisoning wildlife immediately. Others accumulate in the bodies of plants and animals and eventually, prove fatal. Some of the chemicals can be removed from the wastes, but the treatment is expensive.

The commonest pollutants are organic waste in sewage and discharges from tanneries, paper mills and other industries. Insecticides and detergents also provide a serious threat to the river. Since the river constantly flows, it provides the cheapest and simplest way of disposing the incredible loads of wastes that pour out of our homes and factories. And so, instead of a sparkling river, we have a filthy river. Fewer and fewer of our rivers are free of scars inflicted by human carelessness. A concentrated effort to develop more sewage treating plants is the need of the hour. We need to be less selfish and respect the streams and rivers before we ruin them completely. Hundreds of wildlife creatutres and plants will continue to flourish only so long as the rivers flow unpolluted and are free from man-made obstructions.

Taking some of the important rivers from all over the country, this book traces the course they took individually through the countries, and the areas it goes through – the journey through various historical places and the important towns and cities which thrived because of its contribution – the dams and bridges across it – the irrigation support it gave, the festivals that take place along the rivers – the significance of the river to that particular state or region it flows through – and more.

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